

Commentor No. 360: Anonymous

Draft PEIS Comment Form

We need FFTE, please restart it.
This would reduce U.S. dependence on
foreign sources for isotopes that could
be produced at FFTE.
Also studies being conducted for the use
of "smart bullet" isotopes for the treatment
of cancer and other health problems
appears promising.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): _____

Organization: _____

Home/Organization Address (circle one): _____

City: _____ State: _____ Zip Code: _____

Telephone (optional): _____

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 19501 Germantown Road • Germantown, MD 20874
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 360

360-1

360-1: DOE notes the commentor's support for Alternative 1, Restart FFTE.

Commentor No. 361: Charles F. Hubbard

Draft PEIS Comment Form

MY COMMENTS ARE: 1. PERMANENTLY DEACTIVATE FFTF. 2. CONSTRUCT A NEW RESEARCH REACTOR. 3. REPROCESS SPENT FUEL FROM COMMERCIAL AND MILITARY REACTORS. 4. DEVELOP A PROCESS TO UTILIZE THE SURPLUS WARHEAD INVENTORY AS A FUEL SOURCE. 5. SPEED UP THE CLEAN-UP AT THE NATIONAL NUCLEAR SITES (HANFORD, OAK RIDGE, ETC.)

DOE HAS THE REPUTATION OF SPENDING MUCH AND DOING LITTLE. FIX THIS.

MY RESUME INCLUDES FIELD ENGINEER WORK AT WPPSS II AND FFTF. (1977)

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Name (optional): CHARLES F. HUBBARD BS (EE) 1967 UCF

Organization: _____

Home/Organization Address (circle one): 632 SW THORNBERY DR.

City: OAK HARBOR State: WA Zip Code: 98277

Telephone (optional): 360-240-0488

E-mail (optional): hubberds@gte.net

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7/12/00

Response to Commentor No. 361

361-1

361-1: DOE notes the commentor's support for Alternative 4, Construct New Research Reactor. It should be noted that permanent deactivation of FFTF is a part of this alternative.

361-2

361-2: DOE notes the commentor's interest in the reuse of nuclear fuel and surplus plutonium, although issues of fuel reprocessing and surplus plutonium disposition are beyond the scope of this Nuclear Infrastructure PEIS. U.S. policy dating back to the Ford Administration has prohibited the commercial, chemical reprocessing and separation of plutonium from spent nuclear fuel. The "Surplus Plutonium Disposition Final Environmental Impact Statement" (DOE/EIS-0283, November 1999) Record of Decision (January 2000, 65 FR 1608) (see description in Volume 1, Section 1.7) includes the reuse of some surplus plutonium from dismantled weapons in mixed oxide fuel (MOX).

361-3

361-3: DOE notes the commentor's concern regarding the need to expedite cleanup at DOE facilities. The restart of FFTF or any of the other proposed alternative facilities would not impact the schedule or available funding for existing cleanup activities at Hanford, INEEL, or ORR.

361-4

361-4: DOE notes the commentor's concern relating to the cost of DOE programs.

Commentor No. 362: Frank Hanley
International Union of Operating Engineers



★
★
★ *International Union of Operating Engineers* ★
★ 1128 SEVENTEENTH STREET NORTHWEST * WASHINGTON, D. C. 20036 ★
★ AFFILIATED WITH THE AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS ★
★
★ OFFICE OF GENERAL PRESIDENT * (202) 429-9100 ★
★

August 28, 2000

COPY

The Honorable Bill Richardson
Secretary
U. S. Department of Energy
Washington, DC 20585-1000

Dear Mr. Secretary:

I am taking this opportunity to comment on the Department of Energy's (DOE) Draft PEIS concerning future plans for the nation's nuclear infrastructure, including the potential restart of the Fast Flux Test Facility (FFTF) located at DOE's Hanford Site in Washington state.

The International Union of Operating Engineers fully supports this union - built and operated FFTF program. The benefits of having a facility such as the FFTF operating in a production mode include enhanced health care by having a stable, abundant supply of medical isotopes for treatment and research for the public. Let's not rely on foreign sources for our isotopes; instead we should provide the nation with superior nuclear research capabilities, which will keep American workers and skilled trade unionists productively working. The populace of the United States and the world will reap the expected benefits. Moreover, the technological growth and specific knowledge that can be garnered from this research is vitally important to the nation as we strive to reduce our dependence on foreign fossil fuel supplies. Utilizing the existing facility for these endeavors is a fiscally prudent and sound public policy decision. I respectfully urge a favorable DOE decision to proceed with a fully operational FFTF at the Hanford complex.

Sincerely,

A handwritten signature of Frank Hanley in cursive script.

Frank Hanley
General President

FH:pm

cc: ✓ Ms. Colette E. Brown, NE-50
U.S. Department of Energy

Response to Commentor No. 362

362-1

362-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 363: F. P. Brown

Draft PEIS Comment Form

Please restart the Fast Flux Test Facility in Washington. We need this facility and we need to reduce our dependency on foreign countries.

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): F.P. Brown

Organization: Retired

Home/Organization Address (circle one): F.P. Brown Box 64

Robert Lee Texas

City: Robert Lee Texas State: TX Zip Code: 76945

Telephone (optional): 915-453-2093

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 363

363-1

363-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 364: Dorothy L. Brown

Response to Commentor No. 364

Draft PEIS Comment Form

I feel there is a great need to have the first Energy Facility restarted.

364-1

364-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

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- attending public meetings and giving your comments directly to DOE officials
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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Dorothy L. Brown

Organization: _____

Home/Organization Address (circle one): _____

City: Robert Lee State: TX Zip Code: 76945Telephone (optional): (915) 453-2093

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 11, 2000

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7/12/00

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Commentor No. 365: Daniel E. Simpson



Daniel E. Simpson

Nuclear Consulting

118 Hillview Drive
Richland, Washington 99352
USA

August 27, 2000

Ms. Collette Brown
DOE Office of Space and Defense Power Systems, NE-58
19901 Germantown Road
Germantown, MD 20874-1290

Comments on DOE Draft NI PEIS:

Reference: DRAFT Programmatic Environmental Impact Statement for Accomplishing Expanded Civilian Nuclear Energy Research and Development and Isotope Production Missions in the United States, Including the Role of the Fast Flux Test Facility. DOE/EIS-00100. July 2000.

Please accept these comments on the reference NI PEIS. I conclude that restart and operation of the FFTF should be a key element of the subject program, together with utilization of existing thermal neutron reactor irradiation facilities to the extent of their capability and availability.

1. This report indicates that Alternative 1: "Restart FFTF", provides the greatest Mission Effectiveness of the alternatives evaluated. The report did not evaluate the national VALUE of the Mission Effectiveness of the alternatives, nor the cost. The report stated that cost will be considered in alternative selection, but is not a required environmental impact consideration.

(A recent news report states that a cost analysis "confirms that the Fast Flux Test Facility is the most effective means for meeting the entire suite of missions proposed by the Department of Energy." The quote is attributed to Senator Slade Gorton in reference to the cost analysis).

2. The NI PEIS report indicates no environmental impact bar to any of the alternatives. All could be carried out within the bounds of sound practice and applicable standards and regulations.

3. This report clearly indicates that national mission needs would be best met by a combination of a fast neutron reactor and one or more thermal reactors available for irradiation services. FFTF restart is the obvious path to fast reactor availability. ATR is an excellent thermal irradiation reactor facility, but limited in availability due a priority mission. It would be logical to utilize the irradiation capability of Candu reactors, in cooperation with Canada, up to the limits of capacity. When thermal irradiation needs exceed the Candu plus DOE facility available capacity, construction of the new research reactor becomes logical.

4. A key reason for providing both fast reactor and thermal reactor irradiation facilities is to produce the wide variety of isotopes for which there is a need. Some isotopes are most efficiently produced in

Response to Commentor No. 365

365-1: DOE notes the commentor's support for Alternative 1, Restart FFTF, along with the use of existing thermal neutron reactor irradiation facilities, it is assumed that the commentor is referring specifically to ATR and HFIR to the extent of their capability and availability. Under Alternative 1 ATR and HFIR would continue to perform their present missions; however, they would not undertake any new missions as outlined in the NI PEIS.

365-2: The estimated costs of the range of reasonable alternatives are presented in the Cost Report, summarized in Appendix P of the Final NI PEIS. However, the Cost Report is not a cost-benefit analysis. While it is reasonable to believe that the benefits of medical isotopes are substantial, the purpose of this NI PEIS is to describe the nuclear infrastructure missions (Section 1.2 of Volume 1), a range of reasonable alternatives for satisfying the mission requirements (Section 2.5 of Volume 1), and the environmental impacts that would result from implementation of the alternatives. According to 40 CFR Section 1502.23, if a cost-benefit analysis exists, it must be reported and summarized in the NI PEIS.

365-3: This comment is noted. Analyses in the NI PEIS indicate that all of the alternatives assessed in the NI PEIS can be conducted within the bounds of sound practice and applicable standards and regulations.

365-4: As stated in EIS Volume 1, Section 2.6.1, the use of CANDU reactors was considered, but dismissed because this would not meet the programmatic issue of enhancing the United States infrastructure to support the stated missions.

DOE notes the commentor's recommendation to use FFTF for fast neutron produced radioisotopes and to use a new research reactor for thermal neutron produced radioisotopes should existing facility capacities prove insufficient. This combination of facility use is not a specific PEIS alternative. However, in the process of reaching a decision the Secretary may consider, as appropriate, combinations of PEIS alternatives. All isotopes capable of being produced in a thermal reactor can be produced in the FFTF reactor.

365-5: The NI PEIS evaluates alternative ways of achieving the program objectives on a programmatic basis. Therefore, both reactors and accelerators were considered in the evaluation of irradiation facilities. DOE acknowledges that all of the alternatives are not equally effective in meeting the program objectives.

*Commentor No. 365: Daniel E. Simpson (Cont'd)**Response to Commentor No. 365*

the high energy neutron flux of a fast reactor; many others are most efficiently produced by thermal neutrons. FFTF target assemblies can be configured to accomplish thermal energy neutron irradiations, but fast neutron irradiation is its natural role. The new research reactor described in the report is well designed for thermal neutron irradiation for isotope production, and is a logical choice to expand production if existing facility capacities, including FFTF, are insufficient.

365-4
(Cont'd)

5. It appears from the information provided that particle accelerators are not inherently ideal for isotope production. This approach, it seems, would be complex and uncertain and would not be a logical choice for the production missions.

365-5

6. In conclusion, thorough analyses by DOE have shown that restart of the FFTF and operation as a neutron irradiation facility is in the national interest. Furthermore, a long period of operation in this service can be expected with confidence. The FFTF was conceived, designed, and built to develop advanced technology for civilian nuclear program needs. It was subject to high standards and exacting criteria for safety and operational performance. The safety of the design and the adequacy of the safety analysis were confirmed by detailed independent review by the Nuclear Regulatory Commission staff and the national Advisory Committee on Reactor Safeguards. The FFTF remains today a modern facility, with a demonstrated record of safe and successful operation. Its design for irradiation of diverse materials and components in the reactor core provides inherent flexibility that fits well with missions of isotope production; both the facility design and its management procedures are consistent with such uses. In particular, there are well-developed procedures for safety analysis, review, and approval of irradiation target specimens.

365-1

Thank you for your consideration.


Daniel E. Simpson

Commentor No. 366: James Chung

From: James.Chung@fluor.com%internet
[SMTP:JAMES.CHUNG@FLUOR.COM]
Sent: Thursday, August 31, 2000 7:10:59 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: FFTF Environmental Impact Statement
Auto forwarded by a Rule

Dear Sir or Madam,

It is with great concern that I write this e_mail to you regarding the decision to re_start the FFTF. The draft EIS has all the pertinent facts included, but will the facts alone determine your decision?

366-1

If logic dictated our actions then FFTF would never have been put in standby mode in the first place. The arguments for re_starting the FFTF, and thereby correcting our past mistakes, have been promulgated more thoroughly and eloquently than that which follows. Nevertheless, I will reiterate the key point. Nuclear Sciences are vital to our National Security, National Energy Policy, Medical Science, Global Economic Sustainability, and Global Climate stability.

366-2

There are many legitimate and sound reasons to re_start the FFTF. Often these technical arguments are drowned out in a cacophony of emotional and illogical voices whose sole purpose is to feel a sense of accomplishment by ridding our nation of the specter of radioactivity and all things nuclear. I believe that the followers in the anti_nuclear movement are honestly ignorant of the scientific merit of nuclear technology, these people are genuine in their fear and mistrust of things nuclear. The leaders of these movements however, are not to be excused for their part in furthering and exploiting this ignorance.

366-1

Response to Commentor No. 366

366-1: DOE notes the commentor's views and observations.

366-2: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 366: James Chung (Cont'd)

Please, let us not be swayed by the strident cries of those who opinions are formed in ignorance and misinformation. Instead, why not decide to re_start FFTF based solely on the facts. Thank you for your thoughtful consideration.

366-2

Sincerely,

James Chung
2105 Kuhn Street
Richland, WA 99352
509.943.8357

Response to Commentor No. 366

Commentor No. 367: Carolyn Keeler

From: Carolyn Keeler[SMTP:CHEELER@UIDAHO.EDU]
 Sent: Thursday, August 31, 2000 6:39:00 PM
 To: INFRASTRUCTURE_PEIS, NUCLEAR
 Subject: making Plutonium_238
 Auto forwarded by a Rule

Ms. Colette Brown

I am a concerned citizen in Idaho. We do not want any production of Plutonium in our state.

367-1

Reprocessing is not acceptable and should not be considered at INEEL or any other facility

367-2

Building 666 is a decrepit and highly contaminated building and should be decommissioned in a manner that is protective of human health and the environment _ AND THE WATER IN IDAHO! How can you live with yourself knowing that the aquifer in Idaho that is being contaminated under that building is running into the Snake River and then into the Columbia?

367-3

On top of that Plutonium_238 production is unnecessary, NASA doesn't even need it and its use too risky to produce.

367-4

Using ATR at INEEL would interfere with its current mission of producing medical and industrial isotopes that is at least beneficial to humans instead of deadly.

367-5

Also, please consider extending the comment deadline 30 days.

367-6

Thanks for listening.

Dr. Carolyn Keeler

Response to Commentor No. 367

- 367-1:** The commentor's position concerning the production of plutonium in Idaho is noted. Under Alternatives 1 through 4, the Fluorinel Dissolution Processing Facility is a candidate facility for the production of plutonium-238 to support NASA's deep space missions. Plutonium-238 is not used to make nuclear weapons.
- 367-2:** DOE would not conduct any reprocessing to produce weapons grade plutonium under any of the alternatives considered under this PEIS. The alternatives include processing of target materials used to produce isotopes for medical and industrial uses, plutonium-238 for space missions, and nuclear materials research and development. Sections 4.3.1.1.13; 4.3.2.1.13; 4.3.3.1.13; and 4.4.3.1.13 were revised to clarify the waste management approach for waste resulting from processing of target materials for plutonium-238 production.
- Building CPP-666 is divided into two parts, the Fuel Storage Facility and the Fluorinel Dissolution Process Facility (FDPF). The FDPF is under consideration in this PEIS for storage of neptunium-237 oxide, preparation of neptunium-237 targets, and separation of plutonium-238 from irradiated targets. This facility will meet the criteria to conduct these operations safely with further analysis and/or minor modifications.
- 367-3:** DOE notes the commentor's concerns regarding groundwater contamination and the potential for its migration to the Snake and Columbia River systems. Although beyond the scope of this NI PEIS, activities to remediate existing contamination of the Snake River Plain aquifer attributable to INEEL sources are ongoing and of high priority to DOE. INEEL has a comprehensive waste minimization and pollution prevention program in place as summarized in Volume 1, Section 3.3.11.8 that would govern any proposed site activities. Analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.2.1.4, 4.4.2.1.4, 4.5.2.2.4, and 4.6.2.2.4) addressing use of the FDPF indicate that there would be no discernible impacts to groundwater or surface water quality at INEEL from normal operation of FDPF in support of the proposed activities.
- 367-4:** DOE notes the commentor's opposition to the production of plutonium-238 for use in future NASA space exploration missions. Section 1.2.2 of Volume 1 was revised to clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

Commentor No. 367: Carolyn Keeler (Cont'd)

Response to Commentor No. 367

Potential health and safety impacts associated with normal operations, facility accidents, and transportation as a result of the proposed production of plutonium-238 are relatively low and are discussed in detail in Chapter 4 of Volume 1 and Appendixes H, I, and J of Volume 2 in the Final NI PEIS. For over 30 years, radioisotope power systems have repeatedly demonstrated their performance, safety, and reliability in various NASA space missions. However, potential health and safety impacts associated with future launches of spacecraft utilizing plutonium-238 are not within the scope of the NI PEIS analysis, but would be addressed in the specific NEPA documentation prepared by NASA in support of such missions.

- 367-5:** As stated in EIS Volume 1, Section 2.3.1.2, ATR would continue to meet its medical and industrial radioisotope production mission for the no action and most other alternatives considered where ATR is not used for the production of plutonium-238. If ATR were to be used as a production facility for plutonium-238 (options 1, 2, 3, 7, 8, and 9 under Alternative 2), it would support medical and industrial radioisotope production to the extent possible. DOE would try to minimize the impact of the new mission on current medical and industrial radioisotope production.
- 367-6:** DOE notes the commentor's request for extension of the public comment period. The Council on Environmental Quality's (CEQ) "Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act" (40 CFR 1506.10(c)) require that a minimum of 45 days be allowed for public comment on the Draft NI PEIS. As stated in the Notice of Availability (65 FR 46443 et seq.), the public comment period began on July 28, 2000 and continued to September 18, 2000. In preparing the Final PEIS, DOE has assessed and considered both oral and written comments received on the Draft PEIS during the public comment period and has responded to these comments in the Final PEIS. Volume 3 of the NI PEIS contains public comments received on the NI PEIS and DOE responses to those comments. Moreover, late comments were considered to the extent practicable.

Commentor No. 368: Samuel E. Snider

From: Sam and Jane
 Snider[SMTP:SJSNIDER@MICRON.NET]
 Sent: Thursday, August 31, 2000 8:49:52 PM
 To: INFRASTRUCTURE_PEIS, NUCLEAR
 Subject: Plutonium_238
 Auto forwarded by a Rule

Please consider halting any further efforts to reprocess plutonium_238 at the INEEL in Idaho. The production of such substance appears to be unneeded and far too risky. The danger to the environment far outweighs any possible benefit that could come from the results of such efforts. Thank you.

Samuel E. Snider
 SJSnider@micron.net

368-1**368-2****Response to Commentor No. 368**

-
- 368-1:** DOE notes the commentor's opposition to the production of plutonium-238 at INEEL for use in future NASA space exploration missions. Section 1.2.2 of Volume 1 was revised to clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.
- 368-2:** Sections 4.2-4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from implementation of the alternatives, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with each alternative would be small.

Commentor No. 369: Peter B. Roth

From: Peter Roth
 [SMTP:PETERBROTH@NOCHARGE.ZZN.COM]
 Sent: Thursday, August 31, 2000 9:47:34 PM
 To: INFRASTRUCTURE_PEIS, NUCLEAR
 Subject: FFTF Restart
 Auto forwarded by a Rule

Dear Collette Brown/Secretary Richardson,

Please accept the following as public comments on the Draft Environmental Impact Statement on the Nuclear Infrastructure EIS.

As a citizen of the Pacific Northwest, I am deeply concerned about the United States Department of Energy's proposal to restart Hanford's Fast Flux Test Facility Nuclear Reactor. I wish to have my values incorporated into the formal administrative record and taken into consideration when adopting the final record of decision. I also want you to respond to my concerns before you make your record of decision.

First of all, I do not want any plutonium produced in this world. It is such an extremely toxic substance that it is not worth using it for any purpose (especially when alternatives to its use exist)! In addition, considering Hanford's overwhelming problems, including the crisis with tank waste treatment, as well as the damage caused by and radiation released from the Hanford wildfire, restarting FFTF is absolutely unacceptable. We must deal with the waste already at Hanford and focus on the clean_up mission. FFTF maintenance has already gobbled up \$100 million in clean_up money and distracted from desperately needed clean_up. Tank wastes are already seeping towards the Columbia River. More wastes must not be added to those tanks. Clean_up must be the only priority. We must save the Columbia River.

369-1

369-2

369-3

369-4

369-3

Response to Commentor No. 369

369-1: DOE notes the commentor's concerns. This NI PEIS has been prepared in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR Parts 1500 through 1508 and 10 CFR Part 1021), respectively. DOE prepared a separate Nuclear Infrastructure Nonproliferation Impact Assessment to provide additional pertinent information to the Secretary of Energy so that he may make an informed decision with respect to the alternatives presented in the NI PEIS. Pursuant to CEQ regulations (40 CFR 1505.1(e)), agencies are encouraged to make ancillary decision documents available to the public before a decision is made. DOE mailed this document to about 730 interested parties on September 8, 2000. The report was made available immediately upon release on the NE web site (<http://www.nuclear.gov>) and in the public reading rooms. DOE has also provided a summary of the Nuclear Infrastructure Nonproliferation Impact Assessment in Appendix Q in the Final NI PEIS. DOE gave equal consideration to all comments. In preparing the Final NI PEIS, DOE carefully considered comments received from the public. DOE's Record of Decision for the NI PEIS will be based on a number of factors including environmental impacts, public input, costs, nonproliferation impacts, schedules, technical assurance, and other policy and programmatic objectives.

369-2: DOE notes the commentor's opposition to enhancing its existing nuclear facility infrastructure to support production of plutonium-238 for use in future NASA space exploration missions. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions; no viable alternative to using plutonium-238 to support these missions currently exists. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium-238, DOE's ability to support future NASA space exploration

Commentor No. 369: Peter B. Roth (Cont'd)

Also, I object to the fact that you are asking citizens to comment on an incomplete study. You have not told us how you will deal with non_proliferation issues or additional waste from FFTF. Should FFTF be restarted, that decision will be illegal under Federal law and will be overturned! Do the right thing, shut down FFTF now and save the future of the Columbia River!

Sincerely,

Peter B. Roth
7415 _ 5th Ave NE #208
Seattle WA 98115_5370

369-1

369-5

369-1

369-6

Response to Commentor No. 369

missions may be lost. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

Potential health and safety impacts associated with normal operations, facility accidents, and transportation as a result of the proposed production of plutonium-238 are relatively low and are discussed in detail in Chapter 4 of Volume 2 and appendixes H, I, and J of Volume 2 in the Final NI PEIS. Potential health and safety impacts associated with future launches of spacecraft utilizing plutonium-238 are not within the scope of the NI PEIS analysis, but would be addressed in the specific NEPA documentation prepared by NASA in support of such missions.

369-3: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford and migration of contamination towards the Columbia River. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

FFTF is located approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to the groundwater. Further, none of the proposed activities considered by this PEIS will be added to the tank wastes.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

In regards to the Hanford wildfire of 2000, the DOE Richland Operations Office, the State of Washington Department of Health, and U.S.

Commentor No. 369: Peter B. Roth (Cont'd)

Response to Commentor No. 369

Environmental Protection Agency performed environmental monitoring on and around the Site to assess potential radiological impacts. The wildfire did not cause a release of radioactive materials from any Hanford facility but did result in resuspension of radioactive materials which were already in the environment. The low levels of radioactive materials that were resuspended were slightly above natural background levels and required several days of analysis to quantify. Information on this event has been made available to the public and can be accessed at <http://www.Hanford.gov/envmon/indes.html>. This site also provides a link to information on the independent offsite air monitoring that was conducted by the U.S. Environmental Protection Agency.

369-4: DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and support for Alternative 5, Permanently Deactivate FFTF.

369-5: Management of wastes that would be generated under implementation of Alternative 1, Restart FFTF, is discussed in Section 4.3 of Volume 1 (e.g., see Section 4.3.1.1.13). Section 4.3.1.1.13 was revised to clarify that, the Hanford waste management infrastructure is analyzed in this PEIS for the management of waste resulting from FFTF restart and operation. This analysis is consistent with policy and DOE Order 435.1, that DOE radioactive waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical; or at another DOE facility. However, if DOE determines that use of the Hanford waste management infrastructure or other DOE sites is not practical or cost effective, DOE may issue an exemption under DOE Order 435.1 for the use of non-DOE facilities (i.e., commercial facilities) to store, treat, and dispose of such waste generated from the restart and operation of FFTF. In addition, Section 4.3.3.1.13 and 4.4.3.1.13 also address the potential impacts associated with the waste generated from the target fabrication and processing in FMEF and how this waste would be managed at the site.

369-6: See response to comment 369-4. FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1.

Commentor No. 370: Roger H. Webb

From: RogerHWebb@aol.com%internet
[SMTP:ROGERHWEBB@AOL.COM]
Sent: Friday, September 01, 2000 1:44:12 AM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Cc: Mjcontini@aol.com%internet; PamAWebb@aol.com%internet;
roger_h_webb@rl.gov%internet
Subject: Public Comment on FFTF PEIS
Auto forwarded by a Rule

2115 Blue Jay Lane
West Richland, WA 99353
(509) 967_6600
e_mail: rogerhwebb@aol.com

August 31, 2000

Ms. Colette E. Brown, U.S. Department of Energy,
Office of Space and Defense Power Systems,
NE_50, 19901 Germantown Road,
Germantown, Maryland 20874_1290

Subject: Public Comments on the NI PEIS for the FFTF

Ms. Colette E. Brown:

Thankyou for the opportunity to make comments on the Nuclear Infrastructure Programmatic Environmental Impact Statement for the Fast Flux Test Facility (FFTF) dated July 24, 2000. My name is Roger Webb, and I am an engineering consultant in the nuclear industry as well as an 11_year resident of the Tri_Cities. I have a B.S. in Nuclear Engineering and am a registered professional engineer in the state of Washington. I am submitting my comments electronically as I have a schedule conflict with the available public comment opportunities.

Although I can expand upon my comments if needed, I am submitting a brief and concise set of comments to limit volume in the federal records:

Response to Commentor No. 370

Commentor No. 370: Roger H. Webb (Cont'd)

D Medical isotopes have proven overwhelmingly beneficial for the health and welfare of our families and friends and a solid source is needed. Anyone who has had personal experience with a family member or friend that could have been saved from death, diagnosed for specific life_enhancing treatments, or given isotope life_enhancing treatments but was not could and most likely would testify for the restart of the FFTF. The issue of restarting the FFTF is fundamentally political and economical, but the overwhelming benefits provided to peoples lives cannot and must not be limited to some political game. After all, what is the monetary value of ours or our loved ones lives?

D The restart of the FFTF to generate medical isotopes will accelerate the medical isotope technology for continued improvements in the quality of people's lives. Additionally, restart of the FFTF as an existing facility will surely save lives and money. Clearly, restart of the FFTF will take 3 years and the building of a new facility will take approximately 10 years. From a safety and performance point_of_view, the FFTF has a proven track_record of excellent and safe performance and is expected to have a remaining lifetime of at least 35 years to support said missions.

D The restart of the FFTF will provide a long_term economic diversification multiplication effect for the Tri_Cities, Washington state, and the whole United States. Cleanup of legacy Hanford waste will continue to be a priority for the Department of Energy and as this is completed, economic diversity will be reduced. Restart of the FFTF will result in the development of core medical isotope technology and health business and treatment centers in the Tri_Cities and across the nation as well as internationally. In a nutshell, restart of the FFTF to support the generation of medical isotopes will provide our great country with the foundation of being internationally reknown in the area of medical isotope technology.

370-1***Response to Commentor No. 370*****370-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 370: Roger H. Webb (Cont'd)

I request that you have FFTF declared the preferred alternative in final PEIS and that you do so with a quick record of decision to restart to save cancer patient lives.

**370-1
(Cont'd)**

Very Truly Yours,

Roger H. Webb, P.E.
(submitted via e_mail)

Response to Commentor No. 370

Commentor No. 371: Marjorie Worthington

From: George Worthington
 [SMTP:GBWORTH@EARTHLINK.NET]
 Sent: Thursday, August 31, 2000 10:59:59 PM
 To: INFRASTRUCTURE_PEIS, NUCLEAR
 Subject: Comments on Draft PEIS
 Auto forwarded by a Rule

I attended the August 30, 2000 public hearing in Seattle, Washington, and listened to arguments for and against the restart of the Hanford FFTF reactor. The hearing clarified my long held conviction that proponents of plans to activate the reactor are in some way connected with _ or buying into the arguments of the "military and industrial complex" against which Dwight Eisenhower warned citizens of this country over nearly 50 years ago.

371-1

Have we not yet learned that it is in our best interest to serve ourselves, our fellow occupants of this fragile planet, and future generations by cleaning up the messes with which we have polluted our environment, and concentrating on finding less harmful ways to harness energy, to share and cooperate with each other in more creative ways?

371-2

371-3

We must start with our own communities, and keep our promises.. Cleanup at Hanford is an imperative. PLEASE honor the Tri_Party agreement, shut down FFTF, and put all efforts into CLEANUP at Hanford.

371-4

Marjorie Worthington
 Enumclaw, WA 98022

Response to Commentor No. 371

371-1: DOE notes the commentor's concerns related to the use of its facilities for defense purposes. DOE made clear in its presentations and discussions during the public hearings that the missions being addressed were non-defense. It is hoped that DOE's openness and desire for public input were evident to the public attending the hearings. The purpose of this NI PEIS is to evaluate the environmental impacts of reasonable alternatives to fulfill the requirements of the DOE missions, which include the production of medical and industrial isotopes, the production of plutonium-238 for NASA space missions, and civilian nuclear research and development. As evaluated under Alternative 1 in this NI PEIS, FFTF would be restarted to accomplish these nondefense-related missions. Other unrelated nuclear energy and defense-related considerations are beyond the scope of this NI PEIS. DOE's Record of Decision for the NI PEIS will be based on a number of factors including environmental impacts, public input, costs, nonproliferation impacts, schedules, technical assurance, and other policy and programmatic objectives.

371-2: The restart of FFTF or any of the other proposed alternative facilities would not impact the schedule or available funding for existing cleanup activities at Hanford, INEEL, or ORR. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed actions for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and appropriate DOE orders.

371-3: DOE notes the commentor's interest in alternative energy sources, although issues of research and development of alternative energy sources are beyond the scope of this Nuclear Infrastructure PEIS. The DOE missions to be addressed in this EIS, which include the production of medical and industrial isotopes, the production of plutonium-238, and civilian nuclear energy research and development, can currently only be met using nuclear reactor or accelerator technologies.

371-4: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, and concerns regarding the existing cleanup mission at

Commentor No. 371: Marjorie Worthington (Cont'd)

Response to Commentor No. 371

Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. A Tri-Party Agreement change was made to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Prior public meetings were held on this formal milestone change.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected. If the decision is made to shutdown the FFTF, then cleanup dollars will be needed to deactivate the facility, which could impact the overall Hanford cleanup schedule.

Commentor No. 372: Del Ballard

From: del ballard[SMTP:DEL_BALLARD@PRODIGY.NET]
 Sent: Friday, September 01, 2000 12:46:52 AM
 To: INFRASTRUCTURE_PEIS, NUCLEAR
 Cc: senator_murray@murray.senate.gov%internet
 Subject: Support for Restart of FFTF
 Auto forwarded by a Rule

Colette Brown, Document Manager

Reference DOE/EIS_0310D, Draft IN PEIS

I strongly support the option to restart the FFTF at Hanford, Washington, to meet all isotope production and research requirements. Reports have shown that the FFTF can meet all of the nations needs relative to production of Plutonium 238, to make isotopes for medicine, and provide an excellent tool for research and development.

This "newest and most modern" of existing DOE reactors is a proven and dependable facility. Why think of starting from scratch to construct new facilities at immense expense to the taxpayers when we have an existing facility.. I know from personal experience while working my entire professional career on Government projects that inevitably such high technology facilities cost more and take longer to place in operation than initially estimated. Such increased costs and delays would very likely be true of any new reactor or accelerator.

I believe that the medical isotope technology field will grow to be a major health contributor for the nation and the world. FFTF has the capacity for the production of the many and varied types of isotopes needed. Some isotopes that will surely be needed and used in the future, such as copper 67, cannot be produced in the proposed new research reactor. The FFTF, and the fast neutrons it produces, has that capability.

Response to Commentor No. 372

372-1

372-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

372-2: DOE notes the commentor's support for restarting FFTF for enhancing its existing nuclear facility infrastructure for medical isotope production.

372-3: DOE notes the commentor's opinion.

372-2

Commentor No. 372: Del Ballard (Cont'd)

Estimates have show that the construction cost of a new small, and less productive, reactor will be almost twice that of restarting the FFTF_when adding on the cost of FFTF deactivation. The slightly higher annual operating cost of the FFTF over a new reactor will be well worth the price.

372-3

FFTF exists and is paid for _ lets use it!!

372-1

Del Ballard, PE, Civil Engineer.
(509) 946_6401

Response to Commentor No. 372

Commentor No. 373: Craig L. Bennett

From: craigben@concentric.net%internet
 [SMTP:CRAIGBEN@CONCENTRIC.NET]
 Sent: Friday, September 01, 2000 11:35:53 AM
 To: INFRASTRUCTURE_PEIS, NUCLEAR
 Subject: FFTF EIS comments
 Auto forwarded by a Rule

Leaves

Ms. Colette Brown
 DOE Office of Space & Defense Power Systems, NE_50

My name is Craig L. Bennett and I am a former cognizant safety engineer for the Reactor and Heat Transport systems of the FFTF and also a former FFTF Reactor Core Management Nuclear Engineer. I have been in the Nuclear Business since 1955 with General Electric, Battelle Northwest, Westinghouse Nuclear Fuel Division, and finally Westinghouse Hanford Company when I retired in 1996.

I am wholeheartedly in favor of restart of the FFTF, it is the safest, most stable reactor I've been around and worked on.

I believe it should be kept in operation and used for Medical Isotope production and continued testing of fuels and materials for the next generation of fast reactors. It's a good place to convert excess weapons grade plutonium to a peaceful use. I have NO problems living here in the Tri_Cities, WA nearby operating reactors.

373-1

Response to Commentor No. 373

373-1: DOE notes the commentor's support for Alternative 1, Restart FFTF, although it should be noted that conversion of excess weapons grade plutonium is not one of the stated missions for which it would be restarted.

Commentor No. 374: Dan Moore

NI PEIS Toll_Free Telephone

8/31/00

Dan Moore
1740 12th Ave South
Seattle, WA 98144

Calling to urge you to add my comment regarding Hanford. Expressing my opposition to restarting of the FFTF reactor and urging the Department of Energy to honor the Tri_Party Agreement and shut down FFTF once and for all. My opinion is in the interest of public health of the communities around Hanford and through the Northwest. Thank you for your time. Please send me a written comment regarding your actions on this. Thank you.

374-1

374-2

Response to Commentor No. 374

- 374-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and support for Alternative 5, Permanently Deactivate FFTF.
- 374-2:** DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford and the Tri-Party Agreement milestones. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this Agreement. A Tri-Party Agreement change was made to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Public meetings were held on this formal milestone change.

Commentor No. 375: Theresa Howell

NI PEIS Toll_Free Telephone

8/31/00

Theresa Howell
 128½ Rogers Street, NW
 Olympia, WA 98502
 360_705_8614

I actually just heard that there was a hearing but I missed it in Seattle. I actually grew up in Eastern Washington near the Tri_Cities in a small farming town. I just wanted to let you know that I feel it is really extremely important that we clean up Hanford and not just do it now, but we should have done it years ago. We shouldn't be putting any more waste in the State of Washington at all. We have the most hazardous waste of any other state in the nation and that is ridiculous. That is right near my home town, so you should not add any more waste. You should clean it up as soon as possible. Like, it just seems really crazy that the places that ship the waste to us get to comment about the state of the environment and the State of Washington and that scares me. Scares me because the [area] of eastern Washington and the Columbia River are the most beautiful places, and I mean it is great. If you can send me information about your process and what your final decision is going to be that would be great. That was probably the same amount of testimony time that you gave everyone at the public hearing. Hopefully that works for you. Thank you.

375-1

375-2

375-1

375-3

Response to Commentor No. 375

375-1: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The proposed activities delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

375-2: DOE notes the commentor's concern regarding waste generation. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed actions for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and appropriate DOE orders.

375-3: Although not within the scope of the NI PEIS, DOE notes the commentor's concerns regarding river transportation of waste to the Hanford Site and cleanliness of the Columbia River. In general, hazardous wastes are not shipped to Hanford by barging on the Columbia River. There are two exceptions to this: 1) transport of Trojan Nuclear Reactor components for disposal in a commercial disposal site, and 2) transport of decommissioned submarine reactor compartments for burial at Hanford.

FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to the groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1.

Commentor No. 375: Theresa Howell

Response to Commentor No. 375

DOE notes the commentor's questions regarding the NEPA process and request for information. As requested, the commentor has been added to the program mailing list and will receive a notice announcing the availability of the Final NI PEIS and the Record of Decision, when published. DOE is required under the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.) to prepare an environmental impact statement when its actions could significantly affect the quality of the human environment. Also in compliance with NEPA and CEQ regulations, DOE provided opportunity to the public to comment on the scope of the NI PEIS and the environmental impact analysis of DOE's proposed alternatives. DOE gave equal consideration to all comments. In preparing the Final NI PEIS, DOE carefully considered comments received from the public.

Commentor No. 376: Kelly Caldwell

Response to Commentor No. 376

Public Hearing Registration Form

Please place a check mark in the box next to the public hearing attended:

- ☐ August 22, 2000
American Museum of Science and Energy
300 South Tulane Avenue
Oak Ridge, Tennessee 37830
- ☐ August 30, 2000
Washington State Convention and Trade Center
800 Convention Place
Seattle, Washington 98101
- ☐ August 25, 2000
Westcoast Idaho Falls Hotel
475 River Parkway
Idaho Falls, Idaho 83402
- ☐ August 31, 2000
Best Western Tower Inn and Conference Center
1515 George Washington Way
Richland, Washington 99352
- ☐ August 28, 2000
Hood River Inn
1108 E. Marina Way
Hood River, Oregon 97031
- ☐ September 6, 2000
Crystal Gateway Marriott
1700 Jefferson Davis Highway
Arlington, Virginia 22202
- ☒ August 29, 2000
Oregon Museum of Science and Industry
1945 SE Water Avenue
Portland, Oregon 97214

Please provide the following information (which will be used to update our mailing list and to mail future PEIS-related documents)

Mr. Mrs. Mr. & Mrs. ☒ Ms. Dr.

Name: Kelly Caldwell

Title (if applicable): _____

Organization (if applicable): active in many, representing none

Home/Organization Address (circle one): 2615 SE 35th Ave

City: Portland State: OR Zip Code: 97202

Home Phone: 503-231-4114 Work Phone: _____

Fax: _____

E-Mail Address: caldwellkelly@hotmail.com

To receive a copy of the following documents as they become available, please place a check mark on the appropriate line(s):

- ☐ Draft Nuclear Infrastructure Programmatic Environmental Impact Statement (PEIS), Summary only (about 50 pages)
- ☐ Draft Nuclear Infrastructure PEIS and Summary (about 1,100 pages)
- ☒ Final Nuclear Infrastructure PEIS, Summary only
- ☐ Final Nuclear Infrastructure PEIS and Summary
- ☒ Record of Decision
- ☐ Please take me off your mailing list
- ☐ To receive those documents checked above on CD-ROM

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 19001 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free fax: 1-877-562-4592
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/27/00

Commentor No. 376: Kelly Caldwell (Cont'd)

Choose Alt 5

376-1

Nuclear Research should
not be our priority.

Clean-up & research for
clean & sustainable energy
~~are~~ should be our
real priorities. Explore
solar power.

376-2

Response to Commentor No. 376

376-1: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

376-2: DOE notes the commentor's interest in the Hanford cleanup and sustainable energy sources. The current Hanford cleanup mission is high priority to DOE. Implementation of the nuclear infrastructure alternatives would have no impact on the schedule or available funding for existing cleanup activities. Exploration of solar power and research and development of other alternative energy sources are beyond the scope of this Nuclear Infrastructure PEIS. The DOE missions to be addressed in this PEIS, which include the production of medical and industrial isotopes, the production of plutonium-238, and civilian nuclear energy research and development, can currently only be met using nuclear reactor or accelerator technologies.

Commentor No. 377: Laura Paxten

NI PEIS Toll_Free Telephone

9/1/00

Laura Paxten
3239 NW Vonn Street
Portland, OR
503_227_4815

I would like the DOE to permanently and immediately take the Fast Flux Test Facility offline for the Hanford nuclear facility. I am a citizen in Portland, Oregon. I am a registered voter. I agree with Mark Hatfield, former senator, whose letter appeared in the Oregonian today. I do not want Hanford started up in any way. Thank you.

377-1

Response to Commentor No. 377

377-1: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, and opposition to Alternative 1, Restart FFTF.

Commentor No. 378: *Brian J. Lutenegger*

7460 River Shore Lane
Champlin, MN 55316

September 2, 2000

VIA FACSIMILE

Colette E. Brown
U.S. Department of Energy
NE-50
19901 Germantown Road
Germantown, MD 20874-1290

Dear Colette E. Brown:

I wish to comment regarding the draft PEIS, the DOE plan for expanded production of PLU-238 for future space missions. While, in general, I support space exploration, I question the safety of the nuclear-powered spacecraft involved in many of these flights.

NASA is simply not doing enough to develop alternative (solar) power sources for space missions. The European Space Agency (ESA) has now developed high-efficiency solar cells for use in deep space missions. NASA should be designing its own solar cells or working jointly with the ESA to implement their panels in NASA space missions.

The plutonium production/fabrication process for space nuclear power missions has recently led to several worker contamination accidents. An expansion of production will only worsen this problem. And expanding the number of launches of nuclear powered space devices from Cape Canaveral on rockets with 10% failure rates will only increase the possibility of a deadly mishap.

378-1

378-2

378-1

Response to Commentor No. 378

- 378-1:** DOE notes the commentor's concern for NASA's use of nuclear materials for space missions and interest in the development of alternative energy sources for space missions. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. These radioisotope power systems have been used for almost 40 years, and have repeatedly demonstrated their performance, safety, and reliability in various NASA space missions. NASA establishes the need and requirements for space missions and undergoes a thorough NEPA evaluation for each launch.
- 378-2:** Plutonium-238 processing facilities can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Sections 4.2-4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from plutonium-238 processing, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that the radiological and nonradiological risks associated with plutonium-238 processing would be small.

Commentor No. 378: Brian J. Lutenegger (Cont'd)

● Page 2

September 2, 2000

Furthermore, the massive cost of expanded production of plu-238 cannot be justified at a time when DOE admits it needs over \$300 billion to clean-up existing problems at DOE facilities.

Finally, the military is promoting the use of nuclear power in space for space-based weapons technology. Using nuclear power for space war will have severe environmental implications for life on Earth. We simply cannot afford to take this risk for our children's future.

Thank you for your attention.

Sincerely,

Brian J. Lutenegger

378-3

378-3: DOE notes the commentor's opinion and concern about funding available for cleanup at DOE facilities.

378-4

378-4: DOE notes the commentor's concern for the use of nuclear power in space-based weapons, although issues such as the use of nuclear power sources in space-based weapons systems are beyond the scope of this Nuclear Infrastructure PEIS. None of the proposed actions are defense or weapons related. The plutonium-238 produced would be for civilian NASA space exploration missions, not for defense missions.

Commentor No. 379: William Hyde Automotive Research Corporation

09/02/00 SAT 15:40 FAX 2085255256

AUTOMOTIVE RESEARCH ARE

001

Draft PEIS Comment Form

I strongly urge the AEC to NOT waste public money and trying to resurrect the nuclear power industry, as we are moving closer to the production of electric field based electrical power generators.

These generators utilize the force at the electric field to produce electricity and do not require the production of a force via thermal means to produce electricity.

The beginnings of this work is contained in U.S. Patent # 4,897,572 which is a mechanical version which has been since upgraded to a solid state version. There is some information on the internet but I can't verify its accuracy as I have not read it.

We plan to manufacture this electrical power generator to replace current electrical generation systems which are nuclear and are talking to NASA about their long distance space missions.

I strongly urge either no action or alternative 5.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): William HYDE, ARE Division MGR.

Organization: AUTOMOTIVE RESEARCH CORPORATION

Home/Organization Address (circle one): 1685 Whitney St.

City: Idaho Falls, IDA State: ID Zip Code: 83402

Telephone (optional): (208) 525-5256

E-mail (optional): NOT AVAILABLE

COMMENTS MUST BE POSTMARKED BY September 11, 2000

For more information contact: Colette E. Brown, NE-SO
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Response to Commentor No. 379

379-1

379-1: DOE notes the commentor's interest in alternative energy production methods and alternative power sources for future space missions, although issues of research and development of alternative energy sources are beyond the scope of this Nuclear Infrastructure PEIS. NASA establishes the need and requirements for space missions and research priorities. The DOE missions to be addressed in this PEIS, which include the production of medical and industrial isotopes, the production of plutonium-238, and civilian nuclear energy research and development, can currently only be met using nuclear reactor or accelerator technologies.

379-2

379-2: DOE notes the commentor's support for either the No Action Alternative or Alternative 5, Permanently Deactivate FFTE.

Commentor No. 379: William Hyde (Cont'd)

Response to Commentor No. 379

09/02/00 SAT 15:41 FAX 2085255256

AUTOMOTIVE RESEARCH ARE

002



Automotive Research

1685 Whitney
Idaho Falls, Idaho 83402
(208) 523-1400
525-5256

A/AE

INNOVATIVE
ENGINEERING

Sept. 2, 2000

President Clinton

Vice President Gore

RE, RESURRECTION of Nuclear Power

Dear President Clinton, Vice President Gore;

We are in the middle of a TOTAL
Energy Revolution. The mechanical Technology
in U.S. Patent # 4,897,572 Produced the
First electrical Power from the electrical
field force and since has been advanced
to a solid state version.

I strongly urge that you save
the public money for better causes. instead
of resurrecting nuclear power.

I thank both of you for protecting
this important Energy Technology over the years.

Sincerely

Commentor No. 380: David Hensel

09/22/2000 08:34 2082546636

HENSEL/ROBINSON

PAGE 01

David Hensel
PO Box 1104
313 S. 200E.
Driggs, Id.
83422
208-354-8636 voice/ fax
hensel@tetonvalley.net

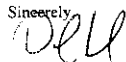
Dear Ms. Brown,

I am writing to voice my opposition to reprocessing plutonium, whether it is done at the INEEL or any other facility. In 1992, President Bush officially halted reprocessing, in an effort to stem the flow of plutonium and to encourage other nations not to engage in this activity. I realize that the proposed facility will not produce weapons grade plutonium. The technology is nearly identical to the one used to produce P-239. One of the most disturbing similarities is the fact that alone with the plutonium the facility will produce hundreds of thousands of gallons of highly radioactive and hazardous waste. The US currently has millions of gallons of this waste that is leaking into the environment. The DOE has no viable cleanup plans for the existing waste. It makes no sense to produce more waste.

Especially when more plutonium is not needed or wanted. The DOE attempts to justify this reprocessing by claiming the material is needed to power space probes. NASA has stated that they do not need anymore P-238.

Another shortcoming of the DOE plans are using Building 666, at the INEEL, which is one of the most contaminated buildings in America. Building 666 should be treated as the pile of nuclear waste that it is and be decommissioned in a manner that is protective of human health and the environment.

Thank you for taking the time to read my comments.

Sincerely

David Hensel

380-1

380-2

380-3

380-4

Response to Commentor No. 380

380-1: As stated in the comment, the proposed facility will not produce weapons grade plutonium. Unlike plutonium-239, plutonium-238 is not used in nuclear weapons. The technology that is discussed in the NI PEIS would be used to chemically separate plutonium-238 and neptunium from irradiated targets and not from irradiated or spent nuclear fuel, whereas reprocessing separates weapons grade plutonium-239 from irradiated nuclear fuel. As discussed in the separate nonproliferation impact assessment report, use of this technology to produce plutonium-238 from irradiated targets will not create a nonproliferation threat. DOE is committed to full compliance with and support of the U.S. policy prohibiting reprocessing. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

380-2: The use of any of the proposed alternative facilities for the stated missions would not have an impact on the cleanup missions at Hanford, INEEL, or ORR. The NI PEIS addresses the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed actions for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and appropriate DOE orders. Waste generation is detailed in Chapter 4 of the NI PEIS for each of the alternatives.

380-3: A May 22, 2000, correspondence from NASA to DOE identified that NASA no longer has a planned requirement for small radioisotope thermoelectric generator (SRTG) power systems. This does not mean that NASA no longer requires DOE to provide the necessary plutonium-238 to support deep space missions. Rather, the suspension of SRTG development efforts was conducted in order to permit reprogramming of funds to support development of a new radioisotope power system based on a Stirling technology generator. This new radioisotope power system, referred to in the subject correspondence, requires 1/3 less plutonium as its fuel source. However, the Stirling technology is developmental and NASA has requested in a

Commentor No. 380: David Hensel (Cont'd)

Response to Commentor No. 380

September 22, 2000 letter to DOE that the plutonium-238 needed for large RTG may be maintained as a backup. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

- 380-4:** Building CPP-666 is divided into two parts, the Fuel Storage Facility and the Fluorinel Dissolution Process Facility (FDPF). The FDPF is under consideration in this PEIS for storage of neptunium-237 oxide, preparation of neptunium-237 targets, and separation of plutonium-238 from irradiated targets. This facility will meet the criteria to conduct these operations safely with further analysis and/or minor modifications.

Commentor No. 381: Ellen Glaccum

SENT BY: GLACCUM ; 9-1-0 20:23; 208 622 5431 => 3014283713; # 1/1

Ellen Glaccum
Box 1173
Kelchum, ID 83340
208-622-5431/726-9532(Tom's fax)

Ms. Colette Brown
DOE
Office of Space & Defense Power Systems
fax 1-877-562-4592

Dear Ms. Brown:

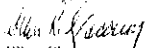
I am writing you with regard to the DOE's plan to produce PU-238. I have VERY strong feelings about this misguided scheme. First and foremost -- PU-238 production is unnecessary. I assume said production is destined for NASA which recently has stated that it will NOT need more PU-238.

Also, given that reprocessing technology has been responsible for huge volumes of liquid waste contaminated with radioisotopes as well as toxic chemicals creating monumental cleanup problems at INEL, Hanford and Savannah River why, in God's name, would any rational human being propose to create more? It's about time that DOE concentrate on cleaning up its toxic legacy, not create more.

With regard to specific problems at INEL, there is no way we should be getting back into the reprocessing business. Remember that this facility sits atop the Snake River Aquifer in a highly unstable (both volcanic and earthquakes) geological area. The two facilities DOE is considering for possible production sites are both unacceptable. Building 666 is old and is scheduled for demolition (rightfully so) by DOE. The Advanced Test Reactor is currently producing medical and industrial isotopes and producing PU-238 would prevent said production. Finally, the state of Idaho has an agreement to remove, not produce, dangerous nuclear waste.

In short, this is yet another unnecessary, expensive, hazardous, stupid, DOE scheme. I strongly urge the DOE to concentrate on cleaning up the mess it's made over the past 50 years and forget about these sorts of bogus, un-needed, garbage-producing, pork-barrel ventures, such as the production of PU-238.

Sincerely,


Ellen Glaccum

cc: Senators Craig & Crapo, Representatives Simpson & Chenoweth, Governor Kempthorne

Response to Commentor No. 381

381-1: DOE notes the commentor's opposition to enhancing its existing nuclear facility infrastructure to support production of plutonium-238 for use in future NASA space exploration missions. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions; no viable alternative to using plutonium-238 to support these missions currently exists. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium-238, DOE's ability to support future NASA space exploration missions may be lost.

The May 22, 2000, correspondence from NASA to DOE identifies that NASA no longer has a planned requirement for small radioisotope thermoelectric generator (SRTG) power systems. This does not mean that NASA no longer requires DOE to provide the necessary plutonium-238 to support deep space missions. Rather, the suspension of SRTG development efforts was conducted in order to permit reprogramming of funds to support development of a new radioisotope power system based on a Stirling technology generator. This new radioisotope power system, referred to in the subject correspondence, requires 1/3 less plutonium as its fuel source. However, the Stirling technology is developmental and NASA has requested in a September 22, 2000 letter to DOE that the plutonium-238 needed for large RTG may be maintained as a backup. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

The technology that is discussed in the NI PEIS would be used to chemically separate plutonium-238 and neptunium from irradiated targets and not from irradiated or spent nuclear fuel, whereas

Commentor No. 381: Ellen Glaccum (Cont'd)

Response to Commentor No. 381

reprocessing separates weapons grade plutonium-239 from irradiated nuclear fuel. As discussed in the separate nonproliferation impact assessment report, use of this technology to produce plutonium-238 from irradiated targets will not create a nonproliferation threat. DOE is committed to full compliance with and support of the U.S. policy prohibiting reprocessing.

Use of any of these facilities for the stated missions would not impact cleanup missions at DOE sites.

- 381-2:** The use of proposed alternative facilities associated with processing of neptunium-237 targets would have no impact on schedules or available funding for high-level radioactive waste programs at either Hanford or INEEL. At INEEL, the tanks would not be used although certain facilities at the Idaho Nuclear Technology Engineering Center (INTEC) would be used to treat the wastes resulting from processing the irradiated targets. These are reliable systems that would process a maximum of 1,050 cubic meters of low-level radioactive waste over the 35-year nuclear infrastructure operational period. The higher activity waste would be treated as a solid form via a stand-alone vitrification system, separate from any tank waste treatment system. At Hanford, the existing high-level radioactive waste facilities would not be used, and as analyzed in the PEIS, no existing or planned high-level radioactive waste facilities would be used to treat the wastes resulting from processing the irradiated targets.

The Settlement Agreement (i.e., Spent Fuel Settlement Agreement, dated October 16, 1995) between U.S. DOE and the State of Idaho established schedules for the treatment of existing high-level radioactive waste, transuranic waste, mixed waste and removal of spent nuclear fuel from the state. This agreement is not applicable to newly generated wastes.

- 381-3:** An extensive discussion of the geology and associated geologic hazards of INEEL and vicinity is provided in Volume 1, Section 3.3.5 of this NI PEIS. The hydrogeology of the site, to include the Snake River Plain aquifer, is described in Section 3.3.4.2.1. Since publication of the Draft NI PEIS, additional facility location-specific information has been added to these referenced sections as reflected in this Final NI PEIS. Analyses presented in Chapter 4 of the NI PEIS (e.g., Sections 4.2.3.2.5, 4.3.2.1.5, 4.4.1.1.5, 4.4.2.1.5, 4.5.2.2.5, and 4.6.2.2.5) addressing use of Building CPP-651, FDPF, and ATR indicate that large-scale geologic

Commentor No. 381: Ellen Glaccum (Cont'd)

Response to Commentor No. 381

conditions (i.e., seismic and volcanic activity) present a relatively low risk to the proposed facilities. Historically, regional earthquakes have resulted in small effects on INEEL and would not be expected to significantly affect specially designed or reinforced structures. Also, the potential for recurrence of volcanic activity associated with identified volcanic rift zones during the 35-year mission timeframe is also very low. In addition, DOE will assess the need to evaluate and upgrade the existing facilities in response to natural geologic hazards in accordance with DOE Order 420.1 Facility Safety. This evaluation is periodically performed as part of facility Safety Analysis Report updates.

- 381-4:** Building CPP-666 is divided into two parts, the Fuel Storage Facility and the Fluorinel Dissolution Process Facility (FDPF). The FDPF is under consideration in this PEIS for storage of neptunium-237 oxide, preparation of neptunium-237 targets, and separation of plutonium-238 from irradiated targets. This facility will meet the criteria to conduct these operations safely with further analysis and/or minor modifications.
- 381-5:** As stated in EIS Volume 1, Section 2.3.1.2, ATR would continue to meet its medical and industrial radioisotope production mission for the no action and most other alternatives considered where ATR is not used for the production of plutonium-238. If ATR were to be used as a production facility for plutonium-238 (options 1, 2, 3, 7, 8, and 9 under Alternative 2), it would support medical and industrial radioisotope production to the extent possible. DOE would try to minimize the impact of the new mission on current medical and industrial radioisotope production.

Commentor No. 383: Charity Schweiger

Charity Schweiger
 28104 SDC 53 PRC SE
 Kennewick, WA
 99338-9335

Mr. William Richardson, Secretary of Energy
 U.S. Department of Energy
 Forrestal Building, 7A-257
 1000 Independence Avenue, S.W.
 Washington, D.C. 20585

I support the restart of the FFTF
 Reactor facility at Hanford to meet the
 national needs for medical isotopes
 and other peaceful nuclear materials.
 The Fast Flux Test Facility is the
 most economical, safe, and
 environmentally friendly method
 available to meet these needs. This is
 the most fiscally responsible option
 available. Sincerely,

Charity C. Schweiger
 Kennewick, WA

Response to Commentor No. 383

383-1

383-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 385: Anonymous

Draft PEIS Comment Form

I support restarting the FFTF.

385-1

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): _____

Organization: _____

Home/Organization Address (circle one): 47335 N. River Rd.

City: Benton City State: Id Zip Code: 83300

Telephone (optional): _____

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free Fax: 1-877-542-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 385

385-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 386: Beth Call

Restart of FFTF at Hanford, WA, public comment

Beth Call
102 Otis
Walla Walla, WA 99362

The USDOF, in spite of recommendations by its own experts and an outcry of NW citizens, is planning to restart the Fast Flux Testing Facility at Hanford. Restarting FFTF would be disastrous for many reasons:

1. FFTF would add further high level nuclear waste to 177 underground High Level Nuclear Waste Tanks, 68 of which are already leaking life-threatening nuclear waste into the ground water seeping toward the Columbia River at a rapid rate. How can DOE propose to create yet more High Level waste when none of the present waste has yet been successfully transformed to a stabler form by vitrification? Insufficient clean-up funding is a major factor in the painfully slow progress being made in this vital project.
2. In 1995 DOE promised in the Hanford Clean-up Agreement to shut down FFTF and use resulting savings for clean-up. \$100 million designated for waste clean-up has instead been used to keep FFTF on hot standby. Much more would be spent to restart and maintain FFTF, thus using clean-up funds to instead produce yet more highly radioactive waste.
3. The Washington State Medical Association says it does not need FFTF as an additional source of medical radioactive isotopes. NASA says it does not need Plutonium 238 for its space program. So why does DOE want to restart FFTF? DOE says it could use the Plutonium 238 for other unspecified missions. This could include **nuclear weapons testing and development**.
4. The DOE's Programmatic Environmental Impact Statement (PEIS) suggests shipping weapons-grade Plutonium through Puget Sound to fuel the FFTF Reactor, despite recent vehement protests of nearby residents and the Seattle and Tacoma City Councils against receiving even spent nuclear fuel. Fire on a Plutonium bearing ship could kill thousands and permanently leave a large area uninhabitable.
5. The deadly radioactive waste of Hanford will, if not contained, contaminate the Northwestern US and beyond, for thousands of years and countless generations, potentially rendering this beautiful area unfit for human habitation. We have an inescapable responsibility to present and future human civilization to clean up Hanford **NOW**. As a first step we must stop the restart of the Fast Flux Testing Facility.

Please include my comments in the official record for the Pu-238/FFTF Environmental Impact Statement.

Response to Commentor No. 386

- 386-1:** The conclusions presented in the NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000 regarding the suitability of FFTF to produce research isotopes in a timely and cost efficient manner were made in the context of the facility producing research isotopes as its sole mission. It would not be cost effective to restart FFTF for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of FFTF for the production of larger quantities of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and conducting nuclear energy research and development for civilian applications. As the NERAC report states: "In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production." In recognition of these constraints on its operational feasibility, the NI PEIS only evaluates the use of FFTF when coupled with the other stated missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to support projected needs could be accomplished without impacting the existing missions of these facilities.

386-2: DOE notes the commentor's opposition for Alternative 1, Restart FFTF.

386-3: As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. High-level radioactive waste would not be generated from merely operating FFTF. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at

Commentor No. 386: Beth Call (Cont'd)

Response to Commentor No. 386

each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

- 386-4:** DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. A Tri-Party Agreement change was made to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Prior public meetings were held on this formal milestone change.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected. If the decision is made to shutdown the FFTF, then cleanup dollars will be needed to deactivate the facility, which could impact the overall Hanford cleanup schedule.

Any future waste generated by these activities will be conducted in accordance with applicable Federal and state laws and regulations and appropriate DOE orders.

- 386-5:** DOE notes the commentor's opposition to restarting FFTF for expanding its existing nuclear facility infrastructure. No component of the proposed action is for the purpose of supporting any defense or weapons-related mission.

DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes,

Commentor No. 386: Beth Call (Cont'd)

Response to Commentor No. 386

estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings.

The United States currently purchases approximately 90 percent of its medical radioisotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. As such, reliance on Canadian sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements. Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S. isotope needs.

Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions; no viable alternative to using plutonium-238 to support these missions currently exists. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium-238, DOE's ability to support future NASA space exploration missions may be lost.

Commentor No. 386: Beth Call (Cont'd)

Response to Commentor No. 386

A May 22, 2000, correspondence from NASA to DOE identified that NASA no longer has a planned requirement for small radioisotope thermoelectric generator (SRTG) power systems. This does not mean that NASA no longer requires DOE to provide the necessary plutonium-238 to support deep space missions. Rather, the suspension of SRTG development efforts was conducted in order to permit reprogramming of funds to support development of a new radioisotope power system based on a Stirling technology generator. This new radioisotope power system, referred to in the subject correspondence, requires one-third less plutonium-238 as its fuel source. However, the Stirling technology is developmental and NASA has requested in a September 22, 2000, letter to DOE that large RTGs be maintained as backup. Section 1.2.2 was revised to clarify plutonium-238 mission needs.

- 386-6:** The commentor appears to express the concern that DOE would expose people in the Puget Sound area to risks associated with the transport of weapons-grade plutonium. None of the proposed alternatives would involve the shipment of any weapons-grade plutonium to any port in the United States. Alternative 1 does postulate that DOE might decide at some point to import mixed oxide fuel from Europe to fuel FFTF. At this time, however, DOE has not proposed to import this fuel through any specific port. If DOE ultimately decides to import fuel from Europe, it would perform a separate NEPA analysis to select a port. This review would address all relevant potential impacts of overseas and inland water transportation, shipboard fires, package handling, land transportation, as well as safeguards and security associated with the import of SNR-300 mixed oxide fuel through a variety of specific candidate ports on the east and west coasts. It would consider all public comments, including local resolutions, concerning the desirability of bringing mixed oxide fuel into the proposed alternative ports.

In the event that DOE decides to enhance its nuclear infrastructure, it would not expose any population to high, unacceptable risks under any alternative. Any transportation activities that would be conducted by DOE would comply with U.S. Nuclear Regulatory Commission and U.S. Department of Transportation regulations. Associated transatlantic shipment would comply with International Atomic Energy Agency requirements. In Section J.6.2, DOE reviewed the potential maximum impacts from the marine transportation of mixed oxide fuel from Europe

Commentor No. 386: Beth Call (Cont'd)

Response to Commentor No. 386

to a representative military port, Charleston, South Carolina, and overland transportation to Hanford. Also in that section, a bounding analysis demonstrates that the maximum potential radiological risks to the surrounding public from mixed oxide fuel shipments would be extremely small (e.g., less than 1 chance in a trillion for a latent cancer fatality per shipment from severe accidents at docks and in channels and less than 1 chance in 50 billion for a latent cancer fatality per shipment from overland highway accidents).

Commentor No. 387: U.S. Representative Doc Hastings

DOC HASTINGS
4TH DISTRICT, WASHINGTON
ASSISTANT MAJORITY WHIP
COMMITTEE ON RULES
SUBCOMMITTEE ON
LEGISLATIVE AND BUDGET PROCESS



Congress of the United States House of Representatives

1001 LONGWORTH BUILDING
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VANALAE, WA 99681
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**Statement of Congressman Doc Hastings
at the Hearing on the Draft Programmatic Environmental Impact Statement for
Accomplishing Expanded Civilian Nuclear Energy Research and Development and
Isotope Production Missions in the United States, Including the Role of the
Fast Flux Test Facility.**

August 31, 2000

Thank you for allowing me the opportunity to share my views with you this evening.

I'm here tonight as a strong supporter of the Fast Flux Test Facility and I urge the Department to move forward with the restart in the Final PEIS.

As a life long resident of the Tri-Cities, I understand the unique challenges our community faces as a result of the Hanford site. And, as the hometown Congressman, I know that a majority of Tri-Cities residents support restart of FFTF. As the DEIS reported: "FFTF would provide the greatest flexibility for both the isotope production and nuclear-based research and development...for all of the proposed alternatives."

It's time to end the politics of fear that has plagued the debate for far too long. We must focus on truth not innuendo, on science not scare tactics, and on the benefit FFTF will provide to this community, the country, and the world.

Tonight we'll hear that cleanup funding at Hanford will be diverted if FFTF is restarted. That's just not true. In fact, the Fast Flux Test Facility is funded under an entirely different account from cleanup dollars in the federal budget. I pledge that I will not allow the restart to jeopardize cleanup dollars for Hanford.

Tonight we'll hear that new tank waste will be added to Hanford if FFTF is restarted. That's just not true. The spent nuclear fuel will be managed independent of the existing Hanford site waste management infrastructure by using commercially available facilities for all waste treatment and disposal activities.

Tonight we'll hear that the Columbia River would be harmed if FFTF is restarted. That's just not true. The fact is FFTF's fuel cycle is a closed cycle with no release of contaminated liquids to the Columbia River or the environment.

387-1

387-2

387-3

387-4

Response to Commentor No. 387

- 387-1:** DOE notes the commentor's support for implementation of Alternative 1 (Restart FFTF). The alternatives evaluated in this NI PEIS are described in Section 2.5 of Volume 1.
- 387-2:** The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As described in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.
- 387-3:** As discussed throughout Section 4.3 of Volume 1, none of the proposed alternatives would add waste to the high-level waste tanks at Hanford.
- Spent nuclear fuel resulting from implementation of Alternative 1, Restart FFTF, would not be managed at commercially available facilities. As described in Section 4.3.1.1.14 of Volume 1, it would be placed in existing storage facilities or dry storage casks at FFTF, pending availability of a disposal site.
- 387-4:** FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to the groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1.

Commentor No. 387: U.S. Representative Doc Hastings (Cont'd)

Tonight we'll hear that FFTF will be used to make weapons grade plutonium. That's just not true. In fact, Plutonium-238 cannot be made into a warhead. And in order for any new missions to be undertaken at Hanford, a new Environmental Impact Statement must be completed.

Tonight we'll hear that the FFTF is unsafe and will put our region in jeopardy. That's just not true. FFTF is much safer than commercial power reactors due to its unique design.

The truth is that FFTF will fulfill our nation's nuclear infrastructure needs and help save the lives of millions of Americans and citizens worldwide. At this hearing we'll hear from many in our community about the benefits nuclear medicine has provided. This is just the tip of the iceberg. FFTF is the only facility in the nation that can produce these isotopes in the size, quantity, and variety needed to fight all the different types of cancer.

Most of us know someone with cancer or have seen a loved one suffer from cancer. Recent developments in the medical isotope field suggest that our ability to combat deadly cancer strains will be revolutionized by these new isotopes. Section 31 of the Atomic Energy Act requires the federal government to maintain research and production quantities of isotopes. The FFTF has the unique ability to produce a steady stream of different medical isotopes simultaneously at one reactor. FFTF offers the added benefit of allowing the government to meet its statutory responsibilities at a low cost to taxpayers rather than building the capacity from scratch.

Medical isotope research is showing tremendous potential to improve the lives of millions of people worldwide. There have been many highly successful clinical trials in the treatment of several major classes of cancer and other medical problems. Medical isotopes offer innovative new ways to treat cardiovascular disease, arthritis, and other rheumatic conditions.

Restarting the FFTF would increase the reliability and diversity of medical isotopes while stabilizing the supply of these promising disease-fighting tools. The rapid growth of this field could support the majority of the costs to operate the reactor. The Expert Panel has estimated that the expected growth rate of medical isotope use during the next 20 years will range between 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications.

Some question these numbers but in 1999 alone the demand for therapeutic isotopes increased by 19 percent. That's not a projection -- that's a fact. However, without the ability to produce these isotopes, lives will be lost and research delayed. I believe that the restart of FFTF will increase the production of isotopes more than any other option in the DEIS. We can operate the FFTF safely and efficiently with little risk to local residents or Americans anywhere in the country.

387-5

387-6

387-7

387-8

387-9

387-10

387-11

Response to Commentor No. 387

387-5: As discussed in Section 1.2 of Volume 1, plutonium-238 would be produced to support NASA's deep space missions. Plutonium-238 is not used to produce nuclear weapons. All missions considered in the NI PEIS are for civilian purposes.

387-6: As discussed in Section 4.3, implementation of Alternative 1, Restart FFTF, would pose no significant risk to the health and safety of the public or workers.

387-7: The commentor's position on medical isotope production in FFTF is noted. As discussed in Section 2.7.3 of Volume 1, no single-production method evaluated could satisfy all of the Expert Panel's medical isotope projections. The medical isotope mission is discussed in Section 1.2.1 of Volume 1.

387-8: DOE was tasked by Congress in the Atomic Energy Act of 1954, as amended, to "... ensure the availability of isotopes for medical, industrial, and research applications, meeting the nuclear material needs of other federal agencies, and undertaking research and development of activities related to development of nuclear power for civilian use." Cost is one of the factors that will be considered in developing the Record of Decision. Other factors include environmental impacts, public input, nonproliferation issues, schedules, technical assurance, policy, and program objectives.

387-9: DOE notes the commentor's position on medical research and applications of radioisotopes.

387-10: The commentor's position on FFTF capabilities to produce medical isotopes is noted. Findings of the Expert Panel are discussed in Section 1.2.1 of Volume 1. The use of medical isotopes has tracked at levels consistent with the Expert Panel's growth projections made in 1998.

387-11: DOE agrees that the FFTF can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.

**Commentor No. 387: U.S. Representative Doc Hastings
(Cont'd)**

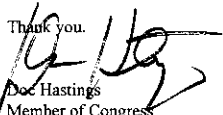
I continue to believe that the EIS should determine the amount of future health care costs that would be avoided by using these isotopes. Only then will we be able to quantify the enormous benefit provided by this unique facility. Any responsible analysis of FFTF must quantify expected benefits as well as potential risks and costs.

The PEIS should also include the benefits of isotope production not only for medicine, but also for biological and agricultural research, food irradiation, and numerous other industrial uses that would benefit the entire nation.

Further, the final PEIS must include a detailed account of the benefits provided for research and education. We must ensure that this nation maintains the ability for American students to learn firsthand the benefits and challenges associated with nuclear reactors. Research is an essential component to ensure further developments in the nuclear field.

In closing, I want to thank everyone for coming tonight. Government works best when we can debate policy freely and openly. I want to thank the Department of Energy for their efforts to ensure an open and fair public comment period. I look forward to working with you in the coming months to ensure that all the considerations of the public are addressed in the final EIS and urge you to conclude that the restart of FFTF is in our country's best interest.

Thank you.


Doc Hastings
Member of Congress

387-12

387-13

387-14

Response to Commentor No. 387

- 387-12:** The estimated costs of the range of reasonable alternatives are presented in the Cost Report, summarized in Appendix P of the Final NI PEIS. However, the Cost Report is not a cost-benefit analysis. While it is reasonable to believe that the benefits of medical isotopes are substantial, the purpose of this NI PEIS is to describe the nuclear infrastructure missions (Section 1.2 of Volume 1), a range of reasonable alternatives for satisfying the mission requirements (Section 2.5 of Volume 1), and the environmental impacts that would result from implementation of the alternatives. According to 40 CFR Section 1502.23, if a cost-benefit analysis exists, it must be reported and summarized in the PEIS.
- 387-13:** While it is reasonable to believe that the benefits of radioisotopes in biological, agricultural, and industrial applications may be substantial, the purpose of the NI PEIS is to describe the nuclear infrastructure missions (Section 1.2 of Volume 1), a range of reasonable alternatives for satisfying the mission requirements (Section 2.5 of Volume 1), and the environmental impacts that would result from implementation of the alternatives.
- 387-14:** The commentor's position on nuclear research and education is noted. The nuclear energy research and development mission for civilian applications is described in Section 1.2.3 of Volume 1.

Commentor No. 388: Shakir Zaman

The following views are submitted in support of FFTF restart:

- FFTF is the preferred alternative for materials testing in support of life extension of existing LWR's for which operating license may be expiring in the next decade or two.
- FFTF should be the preferred alternative for testing of advanced fuels to increase the operating time by reducing refueling cycles of the LWR's.
- In view of the breakdown of the Russian infrastructure soon after the breakdown of the Soviet Union, it should be noted that it is easy to lose the scientific base through benign neglect and or inaction. To ensure that such a phenomenon does not happen in USA, there is a need to build and preserve an infrastructure to maintain the scientific base, experience and knowledge in support of our national programs through positive actions. FFTF is needed to maintain such a scientific base.
- Recent reports of accidents (nuclear submarine accident), breakdown in morale in Russian administration, and prevailing corruption in that country demonstrate potential instability in the Russian institutions. The Russian sources therefore, can not be relied upon to provide Pu-238 on a long-term basis. FFTF is the preferred alternative for the needed production of Pu-238 for the US space program.
- To believe that Hanford can have only one mission i.e. "cleanup only", is naive. We live in a complex and intellectual society. The citizens of this society including Hanford workers can be trusted with multiple missions for multiple facilities geared according to national priorities. FFTF mission can be significantly different than PFP or the Tank Farms and still that mission can be understood and followed successfully according to national priorities.

Shakir Zaman
 SHAKIR ZAMAN
 222 Brookwood Loop
 RICHLAND, WA.
 99352
 (509) 627-6175

388-1**388-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.**388-2****388-2:** DOE notes commentor's support for restarting FFTF for enhancing its existing nuclear facility infrastructure. Consistent with its mandates under the Atomic Energy Act, DOE seeks to maintain and enhance its infrastructure for the purposes of addressing three primary needs:

1) to support the need for increased domestic production of isotopes for medical, research, and industrial uses, as initially identified by a panel of experts in the medical field and reaffirmed by the Nuclear Energy Research Advisory Committee;

2) to support future NASA space exploration missions by re-establishing a domestic capability to produce plutonium-238, a fuel source that is required for deep space missions and which the U.S. has no long-term, assured supply; and

3) to support civilian nuclear research and development needs in order to maintain the clean, safe, and reliable use of nuclear power as a viable component of the United States' energy portfolio. Section 1.2 of Volume 1 was revised to clarify the purpose and need of the proposed action.

388-3**388-3:** DOE notes the commentor's support for using the FFTF for the enhancement of its nuclear facility infrastructure.

Commentor No. 389: Frank E. Cole

FRANK E. COLE, M.D., Ph.D.

Marineland Professional Building

5219 W. Clearwater, Suite 3
Kennewick, WA 99336
Tel. (509) 783-0654
Fax (509) 735-3470

Diplomat Board of
Internal Medicine

Member American
College of Physicians

August 30, 2000

In Support of the Restart of FFTF

To Whom It May Concern:

It is a pleasure for me to speak on behalf of the restart of FFTF. I come perhaps wearing three hats. The first hat is that of a local citizen who has been a part of this community for some 25 years. The second hat is that of a former research scientist who has conducted research utilizing nuclear reactors in the past. And the third is that of a physician who has been in practice for some 20+ years in this community. I speak to you, therefore, with first hand knowledge of the importance of medical research and in particular, radio isotopes that can be utilized for research, diagnosis, as well as treatment of those who are ill. I have, I believe, a unique perspective and so I would like to relate to you very briefly what I think is very important as we give consideration for the restart of FFTF.

In the early sixties, I was a graduate student at Washington State University and utilized the nuclear reactor there for neutron diffraction studies that allowed me to elucidate a very accurate structure of ortho-phosphoric acid. The phosphate moiety, as you know, plays a very important role in biology and biological reactions. I had the opportunity to obtain data from the Oakridge National Laboratory Reactor and utilize these data as part of my Ph.D. thesis. When I was a young post-doctoral fellow, at Roswell Park Memorial Institute, I was a co-author of a paper that very accurately determined the structure of a very primary, yet important amino acid. The data for this research was created at Brookhaven National Laboratories.

Response to Commentor No. 389

Commentor No. 389: Frank E. Cole (Cont'd)

Page 2

It was during those times, the early sixties, that the electron microscope was beginning to play an important role in biology, radio- chemistry was clearly becoming very important, and crystal structure analysis was becoming even more important in terms of elucidating the structure of ribonuclease as well as DNA. We had crude instruments to say the least, at our disposal. The computers were fairly slow and I specifically recall friends of mine using little red wagons to take their computer cards from the chemistry building to the computing center where, if it became too hot, the computer did not run. I remember the early biochemical studies, which addressed enzymes and proteins and their mechanisms of action. And I remember how the pieces were not yet there that would have implications for the treatment of diseases.

Some twenty years later, I could not have dreamed or anticipated all of the tremendous progress that has occurred. And I am convinced progress has occurred because the infrastructure for research; i.e. increased knowledge of radioactive isotopes for biological research, computers, better knowledge of biochemical and cellular reactions, and a better understanding of disease and disease processes, slowly came into place. As I look again some twenty years into the future, it would be literally impossible to visualize the advances that can be made for the curing of diseases and the decrease in the morbidity and the mortality that has attended to these diseases. These advances can only be made if a research infrastructure is in place. What is needed is more research and not less. We need "smart drugs" that are made of antibodies linked to a radioisotope. We need to produce in our own country, medical isotopes such that quality issues are adequately addressed. We need not have to depend on resources outside of our borders that clearly has the possibility of restricting, or at least limiting, our research efforts. These components of the infrastructure along with the FFTF facility I believe will bring good to all mankind that is far beyond our imagination today.

Therefore, it is my feeling that we should, and must, move forward with the restart of the FFTF for the reasons that I have just previously outlined. There is now, and there will be, a need for medical research utilizing isotopes as far into the future as I can see. I believe that the groundwork has already been laid.

*Frank E. Cole MD
PhD*

Response to Commentor No. 389

389-1

389-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 389: Frank E. Cole (Cont'd)

Page 3

As we are well aware, safety issues and environmental impact studies have been extensively addressed and in my opinion, pose no problems. I think the only problem that we have, is related to the fear that is currently being raised, and which I find on a scientific basis, to be unfounded. Therefore, I believe that we should go forth with diligence and not be afraid.

Sincerely Yours,



Frank E. Cole, M.D., Ph.D.

**389-1
(Cont'd)**

Response to Commentor No. 389

**Commentor No. 390: Sheila Rege
Oncology Group PLLC**



September 6, 2000

Ms. Collette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems (NE-50)
19901 Germantown Road
Germantown, Maryland 20874

SUBJECT: Commons on Nuclear Infrastructure Preliminary
Environmental Impact Statement

Dear Ms. Brown:

As a practicing radiation oncologist, I am writing to express my strong support of efforts by the U.S. Department of Energy to strengthen its nuclear infrastructure and become a reliable domestic supplier of medical isotopes.

Recent advances in the diagnosis and treatment of human disease by nuclear medicine procedures have made it more important for the U.S. to supply the needed quantities of isotopes required in the country. Both the draft Programmatic Environmental Impact Statement (PEIS) and the Nuclear Energy Research Advisory Committee have validated the need for D.O.E. to take the lead in establishing a facility capable of producing radioisotopes.

I would like to express my opinion that the restart of the Fast Flux Test Facility (FFTF) at Hanford is the best option to meet the projected future demand for medical isotopes. The FFTF reactors isotope production capabilities far exceed those of other operating U.S. reactors. It would prevent us from continuing to be dependent on Canada and Europe for our medical isotope needs. Because of its high neutron flux and energy spectrum, the FFTF can produce more types of medical isotopes with a higher quality than those supplied by other reactors that are operating today. I understand that the reactor has more than 30 years of lifetime remaining and this appears to be the most practical option for isotope production than the others described in the PEIS.

For the above reasons, I strongly urge that the restart of FFTF be the option chosen by D.O.E. for supplying the quantity and quality of isotopes needed for biomedical research as well as diagnosis and treatment of human diseases.

Response to Commentor No. 390

390-1

390-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Response to Commentor No. 390

Commentor No. 390: Sheila Rege (Cont'd) Oncology Group PLLC

September 6, 2000

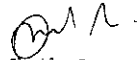
Ms. Collette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems (NE-50)
19901 Germantown Road
Germantown, Maryland 20874

SUBJECT: Commons on Nuclear Infrastructure Preliminary
Environmental Impact Statement

Page Two

As a board certified nuclear medicine specialist and radiation oncologist, I would like to add that I have been extremely impressed with the personnel working at D.O.E. Hanford.

Sincerely yours,



Sheila Rege, M.D.

SR:TTSjk
09/06/00

Commentor No. 391: Paul R. Prevo

Paul R. Prevo
 108 Sherman St.
 Richland, WA 99352
 August 31, 2000

Department of Energy

Dear Sirs:

I support restart of the Fast Flux Test Facility (FFTF). The FFTF will provide much needed medical isotopes at the lowest cost. In addition, restarting the FFTF will ensure that a vital nuclear technology is retained. The U. S. A. will need FFTF technology in the future as the supply of oil and gas declines.

Sincerely,


Response to Commentor No. 391

391-1

391-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 392: Patricia Heasler

Draft PEIS Comment Form

8/31/00

The FFTF is the facility most capable of producing the full range of isotopes that will be needed to meet the healthcare needs for diagnosis/treatment of health illnesses & disease. When the FDA approves upcoming health treatments, there will be an unprecedented demand for isotopes. I think the American government could well serve the people of America & the world if they would utilize the FFTF for isotope production.

Thank you —

Patricia S. Heasler

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Patricia Heasler

Organization: _____

Home/Organization Address (circle one): 2047 Greenbrook BlvdCity: Richland State: VA Zip Code: 9932Telephone (optional): 509 628-2471E-mail (optional): patriciaheasler@msn.com

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 1990 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 392

392-1

392-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 393: Sheryl Paglieri

Response to Commentor No. 393

Draft PEIS Comment Form

alternative: "Restart FFTE"
 should be adopted as the
 preferred alternative.
 FFTE has numerous advantages
 compared with the other alternatives.

393-1

393-1: DOE notes the commentor's support for Alternative 1, Restart FFTE.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Sheryl PaglieriOrganization: HausenwyckHome Organization Address (circle one): 1734 HannaRichleCity: Richland State: WA Zip Code: 99358

Telephone (optional): _____

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Colette E. Brown, NE-50
 U.S. Department of Energy • 19401 Germantown Road • Germantown, MD 20874
 Toll-free telephone: 1-877-562-4593 • Toll-free fax: 1-877-562-4592
 E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Commentor No. 394: Walter W. Laity

Draft PEIS Comment Form

As a 26-year resident of Richland, and as a taxpayer who believes in getting maximum benefit from the nation's capital resources, I am in favor of restarting FFTF. FFTF would be ideal for supporting research such as that called for in "A Roadmap for Developing Accelerator Transmutation of Waste (ATW) Technology," which DOE submitted to Congress on Nov. 1, 1999. Among FFTF's significant advantages for research are the following:

- Only fast reactor remaining in the U.S.
- Designed explicitly for testing fuels and materials.
- Can accommodate a wide variety of test vehicles and large assembly sizes.
- Its high peak neutron flux is an important attribute for completing irradiation tests in a timely manner.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Walter W. Laity

Organization: _____

Home/Organization Address (circle one): 402 Shaw St.

City: Richland State: WA Zip Code: 99352

Telephone (optional): (509) 375-1316

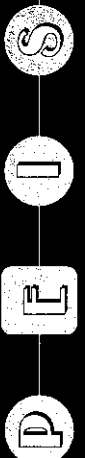
E-mail (optional): w.w.laity@owt.com

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Collette E. Brown, NE-50
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Response to Commentor No. 394

394-1

394-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 395: John B. Logan

Comments on the Draft NIPES

I would like to express my support for the Restart of FFTF as the best option considered in the Draft document.

If the United States is to maintain any form of leadership in the world wide development of the peaceful use of Nuclear Energy we must actively pursue research with any asset at our disposal. The Fast Flux Test Facility is not only one of the newest facilities in the DOE complex, it offers unique capabilities that are not available anywhere else in the world. Because of its large core volume and high flux density it is the only option that can simultaneously meet the requirements of the multiple missions that DOE has identified.

In the field of Medical Isotope Research alone the FFTF offers a potential to dramatically increase the US ability to develop new treatments for Cancer. Promising research is being deferred because isotopes that could be made at FFTF are not available. Meanwhile over 1,000,000 new cases of cancer will be diagnosed this year. Americans deserve the best possible treatments available and the failure of DOE to support such research is reprehensible.

Opponents to restarting FFTF will claim that the risks are too high. The risk of operating FFTF are insignificant compared to the potential benefits. Opponents will claim that the costs are too great. Medical Isotope treatment of cancer is not only less expensive than traditional treatments but it is also less debilitating to patients. What cost are too great if they relieve human suffering?

The United States has historically been a world leader in Research and Development. The choice now is, do we continue to lead? Or do we step back and wait for a new leader?

Restart FFTF

Thank you

John B. Logan
2407 W. 36th Ave.
Kennewick WA. 99337

395-1***Response to Commentor No. 395*****395-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 396: Richard O. Zimmerman

Richard O. Zimmerman
220 Orchard Way
Richard, W. 99352

Please change the definition of safety
to one that closely matches a dictionary.

Draft Programmatic Environmental Impact Statement for Accomplishing Expanded Civilian Nuclear Energy Research and Development and Isotope Production Missions in the United States, Including the Role of the Fast Flux Test Facility

rem (roentgen equivalent man) - A unit of dose equivalent. The dose equivalent in rems equals the absorbed dose in rads in tissue multiplied by the appropriate quality factor and possibly other modifying factors. Derived from "roentgen equivalent man," referring to the dosage of ionizing radiation that will cause the same biological effect as one roentgen of x-ray or gamma-ray exposure. One rem equals 0.01 sievert (See absorbed dose, dose equivalent, and quality factor.)

remediation - The process, or a phase in the process, of rendering radioactive, hazardous, or mixed waste environmentally safe, whether through processing, entombment, or other methods.

remote-handled waste - In general, refers to radioactive waste that must be handled at a distance to protect workers from unnecessary exposure (e.g., waste with a dose rate of 200 millirem per hour or more at the surface of the waste package). (See contact-handled waste.)

resin - See ion exchange resin.

Resource Conservation and Recovery Act, as Amended - A law that gives the U.S. Environmental Protection Agency the authority to control hazardous waste from "cradle to grave" (i.e., from the point of generation to the point of ultimate disposal), including its minimization, generation, transportation, treatment, storage, and disposal. Resource Conservation and Recovery Act also sets forth a framework for the management of nonhazardous solid wastes. (See hazardous waste.)

riparian - Of, on, or relating to the banks of a natural course of water.

risk - The probability of a detrimental effect from exposure to a hazard. Risk is often expressed quantitatively as the probability of an adverse event occurring multiplied by the consequence of that event (i.e., the product of these two factors). However, separate presentation of probability and consequence is often more informative.

risk assessment (chemical or radiological) - The qualitative and quantitative evaluation performed in an effort to define the risk posed to human health and/or the environment by the presence or potential presence and/or use of specific chemical or radiological materials.

roentgen - A unit of exposure to ionizing x- or gamma radiation equal to or producing one electrostatic unit of charge per cubic centimeter of air. It is approximately equal to 1 rad.

runoff - The portion of rainfall, melted snow, or irrigation water that flows across the ground surface, and eventually enters streams.

Safe Drinking Water Act - This act protects the quality of public water supplies, water supply and distribution systems, and all sources of drinking water.

safe, secure trailer - A specially modified semi-trailer, pulled by an armored tractor truck, which DOE uses to transport nuclear weapons, nuclear weapons components, or special nuclear material over public highways.

safeguards - An integrated system of physical protection, material accounting, and material control measures designed to deter, prevent, detect, and respond to unauthorized access, possession, use, or sabotage of nuclear materials.

safety - With regard to nuclear weapons, minimizing the possibility that a nuclear weapon will be exposed to accidents and preventing the possibility of nuclear yield or plutonium dispersal should there be an accident involving a nuclear weapon.

Safety analysis report - A report that systematically identifies potential hazards within a nuclear facility, describes and analyzes the adequacy of measures to eliminate or control identified hazards, and analyzes potential accidents and their associated risks. Safety analysis reports are used to ensure that a nuclear facility can be constructed, operated, maintained, shut down, and decommissioned safely and in compliance with applicable laws and regulations. Safety analysis

Change to
Standard
dictionary
definition

396-1

Response to Commentor No. 396

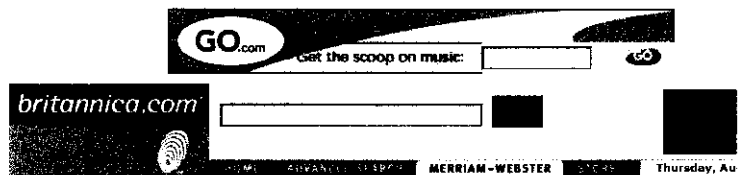
396-1: The definition of safety with regard to nuclear weapons has been deleted from the Glossary.

Commentor No. 396: Richard O. Zimmerman (Cont'd)

Response to Commentor No. 396

Britannica.com

Page 1 of 2



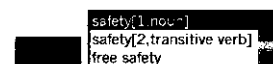
Merriam-Webster's Collegiate Dictionary



Search Merriam-Webster's Collegiate Dictionary

13 words found.

To view an entry in the list, highlight it and click on GO TO.



Main Entry: **¹safe-ty**

Pronunciation: 'sāf-ē-tē

Function: *noun*

Inflected Form(s): *plural: safeties*

Etymology: Middle English *saufte*, from Middle French *sauveté*, from Old French, from *sauve*, feminine

safe

Date: 14th century

1 : the condition of being safe from undergoing or causing hurt, injury, or loss

2 : a device (as on a weapon or a machine) designed to prevent inadvertent or hazardous operation

3 a (1) : a situation in football in which a member of the offensive team is tackled behind its own goal counts two points for the defensive team -- compare TOUCHBACK (2) : a member of a defensive back football who occupies the deepest position in order to receive a kick, defend against a forward pass, ballcarrier **b** : a billiard shot made with no attempt to score or so as to leave the balls in an unfavor for the opponent **c** : **BASE HIT**

Dictionary Pronunciation Key

\ə\ as a and u in abut	\e\ as e in bet	\o\ as aw in law
\ʌ\ as e in kitten	\E\ as ea in easy	\oi\ as oy in boy
\&r\ as ur and er in further	\g\ as g in go	\th\ as th in thin
\a\ as a in ash	\l\ as l in hit	\[th_]\ as th in the
\A\ as a in ace	\I\ as i in ice	\ü\ as oo in foot
\ä\ as o in mop	\j\ as j in job	\u\ as oo in foot
\au\ as ou in out	\ng\ as ng in sing	\y\ as y in yet

<http://www.britannica.com/cgi-bin/dictionary?va=safety>

8/31/00

**Commentor No. 397: Robert J. Thompson, Mayor,
City of Richland, WA**



505 Swift Blvd. • Box 190 • Richland, Washington 99352 • (509) 942-7390 • FAX (509) 942-5666

OFFICE OF THE MAYOR

August 28, 2000

Colette Brown, Document Manager
Office of Nuclear Energy, Science and Technology
U.S. Department of Energy
19901 Germantown Road
Germantown, MD 20874

Re: NI PEIS

Dear Ms. Brown:

I am writing you to restate the position of the City of Richland regarding the Draft Environmental Impact Statement that addresses future use of the Fast Flux Test Facility (FFTF) at Hanford. The City has stated in several letters to the Department of Energy over the past few years that we unequivocally support the use of FFTF for production of isotopes for medicine, space missions as well as other research and development projects.

In 1996 we formed an advisory committee with over 30 participants from a wide spectrum of interests in our community. They studied the use of FFTF and other Hanford facilities for isotope production and plutonium disposition. The committee concluded that the FFTF, which was designed to operate with mixed oxide fuel and has more than a 20-year remaining life, should be used to produce medical isotopes and other products. Operating the facility has the added advantage of disposing of surplus weapon's material by converting it to reactor fuel and irradiating it to the spent fuel standard, which makes the material unavailable for weapons.

Residents of our community were involved in the design construction and operation of FFTF. They are extremely knowledgeable about the facility's track record for safe operation. We have no reservations about the reactor being restarted to serve various national missions. We would however object to our federal tax dollars being spent to build a new facility somewhere else that has less capability than FFTF. We were pleased that the cost analysis done by the Department of Energy as part of the current Environmental Impact Statement, confirms that FFTF is the most cost effective means for meeting the entire suite of missions proposed.



Response to Commentor No. 397

397-1

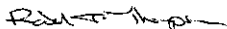
397-1: DOE notes the commentor's support for Alternative 1, Restart FFTF, although it should be noted that conversion of weapons grade plutonium is not one of the stated missions for which it would be restarted.

**Commentor No. 397: Robert J. Thompson, Mayor,
City of Richland, WA (Cont'd)**

NI PEIS
Page 2

Hanford's legacy is the production of plutonium for the defense of our country. It is a proud history but one that leaves this region with a significant environmental cleanup challenge. It is our dream to develop a new legacy, which is the production of a wide range of medical isotopes. Many isotopes have not been examined for their life saving potential because they have not been available to researchers. Others that have proven successful in clinical trials will not be available in the quantity needed when FDA approval is granted. It is shocking that the United States currently lacks the capability to provide needed isotopes for cancer victims in this country. FFTF is the solution to this problem. Department of Energy must make the bold decision to restart the reactor.

Sincerely,



Robert J. Thompson
Mayor

CC: Richland City Council
Ron H. Rabun, City Manager
Senator Slade Gorton
Senator Patty Murray
Congressman Doc Hastings
Keith Klein, DOE-RL

397-1

Response to Commentor No. 397

Commentor No. 398: G. Jansen

NI PEIS
EXTINCT SPECIES



MEETING THEME: FIRST
TO BE REINTRODUCED.



FFTF: first white
elephant with
3 artificial legs

HTTP://WEST RICHLAND.
3-18 CITIES.COM

HANFORD NATIONAL MONUMENT to be used as preserve
for extinct pleistocene mammals. ENDANGERED
SPECIES ACT EXTENDED TO INCLUDE FLORA AND FAUNA
THAT FELL VICTIM TO MIGRATION OF PREHISTORIC MAN
TO WESTERN HEMISPHERE. THEME PARK WILL BE
MAJOR TOURIST ATTRACTION BRINGING MILLIONS OF DOLLARS TO TRI-CITIES.
COUGAR
WSU/TRI-CITIES MASCOT TO BE REPLACED
BY GIANT GROUND SLOTH WITH 3" DIAMOND BALLS
FOR SNOWBALL FIGHT SUBSTITUTE

G. Jansen 126 ORCHARD COURT RICHLAND WA
30 AUG 2000 627-7385

398-1

Response to Commentor No. 398

398-1: Comment noted.

**Commentor No. 399: Donna Noski, Council Member,
City of West Richland, WA**

The time is close when a decision will be made on the future of the Fast Flux Test Facility. When all the information is compiled, it will come down to the Department of Energy determining what is the "right" decision on the future of the controversial FFTF.

How will DOE make the "right" decision? How will ^{DOE} ~~you~~ determine what is in the highest and best interest of our nation? I offer that the decision process simply comes down to determining "what works". "What works" cannot be separate from the highest and best interests of the nation and the world.

FFTF is capable of: *Aviation Nuclear Research & Development*
Transmutation of Waste to reduce nuclear waste stockpiles *to include*

FFTF is capable of:
Producing power for NASA's deep space probes

FFTF is capable of:
Producing medical isotopes for treatment of cancer and other diseases.

As a result of these capabilities, the final EIS should identify

- FFTF as the preferred alternative
 - it should include health care cost savings
- and,
- it should identify the importance of the need for expansion of medical isotope production

Restart of FFTF is in the highest and best interest of our nation.
Making the decision to restart FFTF is "what works".

Donna Noski
West Richland City Council Member

399-1

399-2

399-3

399-2

Response to Commentor No. 399

399-1: DOE notes the commentor's views on decisionmaking in the NEPA process.

399-2: DOE notes the commentor's support for Alternative 1, Restart FFTF.

399-3: DOE notes the commentor's views that health care cost savings and the importance for expanded medical isotope production be identified in the NI PEIS. The estimated costs of the range of reasonable alternatives are presented in the Cost Report, summarized in Appendix P of the Final NI PEIS. However, the Cost Report is not a cost-benefit analysis. While it is reasonable to believe that the benefits of medical isotopes are substantial, the purpose of this NI PEIS is to describe the nuclear infrastructure missions (Section 1.2 of Volume 1), a range of reasonable alternatives for satisfying the mission requirements (Section 2.5 of Volume 1), and the environmental impacts that would result from implementation of the alternatives. According to 40 CFR Section 1502.23 if a cost-benefit analysis exists, it must be reported and summarized in the NI PEIS.

Commentor No. 400: Ken Dobbin, Councilman, City of West Richland, WA

Secretary William Richardson
United States Department of Energy
Forrestal Building
1000 Independence Avenue SW
Washington, DC 20585

August 31, 2000

Dear Mr. Secretary:

During the FFTF scoping meetings last year, I spoke on behalf of the residents of West Richland. This year, I am morally compelled to speak on behalf of a larger constituency. I must speak for the thousands of American children and tens of thousands of American adults, across our great land, who will, over the next 35 years, owe their lives to the FFTF. The citizens of West Richland expect me to speak out for those helpless in the face of cancers not now curable.

On behalf of those Americans, from coast to coast, whose lives will be saved from FFTF isotopes, I want to thank the United States Department of Energy, from the bottom of my heart. Thank you for carefully weighing the science in preparing this Programmatic Environmental Impact Statement (PEIS). It would have been far easier to fold under the political pressure of anti-nuclear fanatics who don't care about the helpless, but only in advancing their own agendas. I am speaking of fanatics who say we don't have a shortage of medical isotopes, even though there is a one-year backlog for Pd 103 seed therapy and patients have been denied clinical trials using nuclides such as Cu-67 due to lack of supply. I am speaking of fanatics who propose either a red herring of an accelerator that only has a target volume the size of a pop can or one that costs billions of dollars and 10 years to build. I am speaking of fanatics who falsify safety data to say that there is a one-in-three chance of an accident that will contaminate eastern Washington. I am speaking of fanatics who say let people die rather than bring one more atom of waste to Hanford--then they turn around and dump the 1000 ton radioactive Trojan reactor vessel on us!

On behalf of those Americans whose future depends upon the FFTF, I respectfully ask that the argument for restart be strengthened. Please add to the final PEIS the medical cost savings from a sufficient supply of medical isotopes as a first line defense against cancer, heart disease, and arthritis. Estimates I have seen put these savings in the billions of dollars. Please add the loss of life that will result from choosing an option that takes longer to build than the three year startup time of the FFTF. These data should be added to Figures S-5 and 2-24. The four years quoted in Table E-12 must be a misprint. I cannot conceive of a facility that could produce all the required isotopes being built in that short of a time. Please compare the debt service on the capital cost to build new production capability, with the much smaller annual operating cost of the FFTF. In addition to the saving of lives, taxpayers expect us to be good stewards of their dollars.

Our opponents, who have shown they don't understand science, medicine, or engineering, have falsely accused the FFTF of generating too much waste. Please clarify the facts for them. Show a picture of one of the score of dry fuel storage casks now stored on a pad at

Response to Commentor No. 400

400-1

400-1: DOE notes the Councilman's views and observations.

400-2

400-2: DOE notes the commentor's views on the costs and benefits of the proposed production of medical radioisotopes. The estimated costs of the range of reasonable alternatives are presented in the Cost Report, summarized in Appendix P of the Final NI PEIS. However, the Cost Report is not a cost-benefit analysis. While it is reasonable to believe that the benefits of medical isotopes are substantial, the purpose of this NI PEIS is to describe the nuclear infrastructure missions (Section 1.2 of Volume 1), a range of reasonable alternatives for satisfying the mission requirements (Section 2.5 of Volume 1), and the environmental impacts that would result from implementation of the alternatives. According to 40 CFR Section 1502.23, if a cost-benefit analysis exists, it must be reported and summarized in the NI PEIS.

400-3

400-3: The four years stated in the NI PEIS Table E-12 is not a misprint, but is based on comparable radioisotope production research reactors that have been designed and are being constructed in Canada and Australia, as referenced in Section E.10. The four year time period is for new research reactor construction only and does not include design, licensing, and pre-operational startup activities, which were assumed to require an additional four years as presented in PEIS Figure 2-34 of Volume 1.

400-2

400-4

400-4: DOE notes the comment.

Commentor No. 400: Ken Dobbin, Councilman (Cont'd)
City of West Richland, WA

the FFTF. Each cask, about the size of a compact car, contains 7 spent fuel assemblies, already in a dry, controlled environment that is safe until a repository is opened. To save the lives of the constituents I am representing tonight, it will only take two more casks per year. Compare this volume with the spent fuel the Navy is generating that must go to the same repository. Each day, a foreign power, called cancer, enters the US and murders 1500 Americans. We need the FFTF to defend those people as much as the Navy needs submarines! Also compare the one truckload of low-level waste from the FFTF each year with that generated by other sources such as hospitals. Will our fanatical opponents declare war on hospitals next? It will take the FFTF much longer than 35 years to generate as much low-level waste as Oregon sent us last August on one barge! Let our hypocritical opponents declare war on Oregon, not on those suffering from cancer.

400-4

Please emphasize how the FFTF is complimentary with other DOE sites and facilities. For my 25 years as a nuclear engineer, too often I have seen one site pitted against another rather than cultivating cooperation. I was told in 1993 that the FFTF would have to be shut down to save EBR-2 and the Integral Fast Reactor (IFR) program. I was also told that the Advanced Neutron Source would produce all needed medical isotopes. It was not long after the FFTF shutdown order that these facilities were shut down and canceled, invalidating the justification for FFTF shutdown. We know now that without the FFTF, the DOE cannot produce a space power source, provide for material science testing along with the other nuclear technology needs and still provide the quantity and quality of medical isotopes that my constituents will need. New facilities with the same capability cannot be built in the three year period that it takes to get the FFTF restarted. Every minute, every hour, every day, every month that we delay, human life is lost! All DOE sites cannot help but embrace the FFTF startup to create a rising nuclear technology tide that will raise the well-being of all Americans. No one could support delay in getting on line a medical facility to supply the required quantity and quality of isotopes. No one could intentionally delay a facility that will transform the new promising clinical trials to a first line defense, coast to coast.

400-5

400-6

FFTF operation is good for America. Our opponents have tried but failed during the last 4 years to find a legitimate reason not to restart. I have sat through public meeting after public meeting listening to their false testimony. I have read their internet sites. They have not developed one legitimate reason why the FFTF should not be restarted!

400-1

Therefore, let's get on with it. Please designate the FFTF as the preferred alternative in the final PEIS and make a record of decision to restart as soon as possible. Every minute of every day another American man, woman, or child dies of cancer. They are depending upon us!

400-6

Sincerely,



Ken Dobbin, Councilman
 City of West Richland, WA

Response to Commentor No. 400

400-5: DOE notes the concerns expressed about efficient and coordinated use of its facilities and resources.

400-6: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 401: Jim Davis



Jim Davis for Congress Campaign
2132 Harris Ave.
Richland, WA 99352
(509) 946-0826

FOR RELEASE
Aug. 31, 2000

For more information contact:
Patty Heasler, campaign manager
(509) 946-0826 headquarters
(509) 366-2471 cellular

Jim Davis Strongly Favors Restart of FFTF

*Testimony submitted August 31, 2000 by Jim Davis in support of FFTF at Richland's
Tower Inn:*

This letter is in response to the comment period concerning the findings of the
Department of Energy's (DOE) Nuclear Infrastructure Programmatic Environmental
Impact Statement (NI PEIS).

I strongly endorse the restart of the Fast Flux Test Facility (FFTF) for essential
peaceful, civilian missions. I believe this can be done without sacrificing the primary
clean-up mission of Hanford and without generating substantial new waste streams that
pose a significant burden to the clean-up mission.

401-1

Response to Commentor No. 401

401-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 401: Jim Davis (Cont'd)

FFTF is America's best answer for medical isotope production. Reactivation of FFTF will allow more people to effectively combat cancer. In addition, FFTF can also produce more kinds of isotopes, providing more flexibility for isotope research, which can lead to more effective treatments for cancer.

From my reading of the cost analysis released by the Department of Energy, I feel the restart of FFTF is the most cost-effective solution. The added costs of converting FFTF from standby to shutdown will cost an estimated \$281.2 million. This would take a substantial amount of money away from environmental cleanup.

FFTF is not an issue we should be playing politics with. Like all difficult issues, we are going to have to work with local officials, with the Administration and with both sides of the state to produce results. We have the unique opportunity to operate a state-of-the-art research facility here in the Tri-Cities community. We can truly save lives, as thousands will be treated with the medical isotopes that are produced at FFTF.

I am convinced that FFTF can be restarted without endangering the critical cleanup missions at Hanford. In congress, I will fight to ensure that FFTF funding does not cut into cleanup missions. We have to restart FFTF; people's lives depend on it.

###

401-1

Response to Commentor No. 401

Commentor No. 402: M. F. Duffield

Draft PEIS Comment Form

*I am in favor of start up of
FFTF for medical ~~isotope~~ ^{isotopes} +
PU238*

402-1

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): *Maurice F. Duffield*

Organization: _____

Home/Organization Address (circle one): *1940 Phocas St*

City: *W. Richland* State: *LA* Zip Code: *99353*

Telephone (optional): _____

E-mail (optional): _____

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Collette E. Brown, NE-50
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Response to Commentor No. 402

402-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 403: Ginger Vetrano

Response to Commentor No. 403

Draft PEIS Comment Form

So often when local state or national government try to erect or construct a new controversial project, there is the NIMBY effect - Not In My Backyard. Here in the Tri-Cities we want the FFTF to be restarted because of all the good results that will occur. If it is not restarted, you can believe that getting another reactor or accelerator built will be exceedingly difficult to do. The same groups that are trying to deactivate FFTF will try to prevent or delay the construction & activation of these other projects. In other words, you can almost be assured that the production of adequate isotopes, W235 and research will not be available for many years, if even.

403-1

403-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Ginger VetranoOrganization: N/AHome/Organization Address (circle one): 4512 W. YellowstoneCity: Kennelworth State: WA Zip Code: 99336Telephone (optional): (509) 735-4248E-mail (optional): Vetrano@out.com

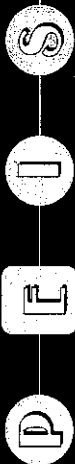
COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll free telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Commentor No. 404: Roger J. Thiede

Draft PEIS Comment Form

- ① Recommend returning FFTE as operating reactor for primarily medical isotopes. Although I retired in 1989, I was intimately involved in the standards used to construct FFTE. FFTE is a good machine and is too valuable to shut down.
- ② Wife died in 1993 of cancer. New treatments with isotopes might have saved her.
- ③ Grandfather died of prostate cancer.
- ④ Grandmother died of cancer even though it was in remission after 5 yrs following radiation therapy.

404-1

Response to Commentor No. 404

404-1: DOE notes the commentor's support for Alternative 1, Restart FFTE.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Roger J. Thiede

Organization: Self

Home/Organization Address (circle one): _____

1314 Birch Ave.

City: Richland State: WA Zip Code: 99352

Telephone (optional): 509-945-1905

E-mail (optional): rathiede@adl.com

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PBS@hq.doe.gov



7/12/00

Commentor No. 405: Walt Apley

My name is Walt Apley and I am a resident of Richland, Washington. I support FFTF restart for medical and industrial isotope production, Plutonium-238 production, and research & development irradiation requirements. Besides expressing that support, I have three comments:

(1) The debate on FFTF should not distract us from acknowledging how critically important the nuclear infrastructure needs are. A great nation like ours must: promote the health and welfare of its citizenry; protect the environment we live in; and support the beneficial expansion of human knowledge. Failure to provide medical isotopes is not an option. Failure to provide nuclear research capabilities is not an option. Failure of this EIS to result in a decision that fixes what is a clear and present danger is not an option.

(2) My second comment relates to, given the need, why FFTF? FFTF has the size no other available test reactor has to meet a self-supporting set of missions. FFTF's safety record is superb and it remains the Department of Energy's only reactor that meets modern commercial U.S. nuclear standards. FFTF's neutron spectrum is a unique scientific asset, and it would be a technological tragedy were that asset to disappear. The fast neutron spectrum is a critical tool needed for high purity isotope production, fusion materials research, waste transmutation development, and nuclear materials lifetime extension studies. Eliminate this scientific tool and you take an almost irreversible step to set nuclear research back in a major way.

(3) My third comment is a concern, and a cautionary statement. FFTF is an outstanding facility that

Response to Commentor No. 405**405-1****405-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.**405-2:** DOE notes the commentor's opinion.

Commentor No. 405: Walt Apley (Cont'd)

should be restarted and could be ^{an incredible} ~~such a~~ boon to health care and nuclear research. But DOE and Congress must recognize that a great investment like FFTF requires sustained and sufficient investment. I'm sick and tired of the short-sighted, penny-pinching, do it with less attitude that Congress and this administration has displayed towards its nuclear infrastructure. A decision to restart FFTF needs to come with the firm resolve to fund excellence.

405-1
(Cont'd)

405-2

I know that the people involved in putting together this EIS and making the decision are doing their best. But as Winston Churchill ~~said~~ said "Sometimes it is not enough to do your best. You must do what is right." Restarting FFTF is the right decision.

405-1

Response to Commentor No. 405

Commentor No. 406: Bruce Klos

~~098~~
~~038~~
~~021~~
~~484~~ ~~845~~ ~~805~~ ~~834~~ ~~600~~
for the Chair

My names is Bruce Klos, and I have been a resident of Washington for

more than 27 years, and I am speaking as a

I read with interest the letter addressed to Secretary Richardson from

Senator Wyden and representatives from Oregon and Washington, which

~~But the representative that signed the paper,~~
we all heard some references to this evening. I find it surprising and

somewhat dismaying that individuals, ^{Some} ~~some who are here tonight or who~~

here tonight, have a representative speaking for them, individuals who should

represent a much broader constituency than the active, vocal, so-called

environmentalists, representatives who are obviously intelligent

individuals, would allow their names to be placed on a document with so

many half truths, quotes taken out of context, ^{and} ~~at~~ information which is

obviously intended to mislead or misinform. I would expect that my

Senator and my Representative would seek out the whole truth before

his or her signature was affixed to any document. Note: As a side bar, I

would like to state that I believe that our Senators and most of our

Representatives do conduct a thorough research on both sides of the

issues before they sign a document.

406-1

Response to Commentor No. 406

406-1: DOE notes the commentor's views and observations.

Commentor No. 406: Bruce Klos (Cont'd)

Although the three-page letter had many of these half-truths I will limit my remarks to three or four of them, depending on the time. A couple of these were addressed in the opening remarks but I believe bear repeating.

First half-truth - The NERAC subcommittee (the referenced "blue ribbon panel") did indeed state that the FFTF was ill suited (because of

financial - not technical reasons) to produce research isotopes. However, the NERAC subcommittee also said that there was a shortage of isotopes

and that the FFTF was well suited for large scale production of isotopes;

isotopes that will be needed to treat patients, not just conduct research.

What use is the research if you don't have the production quantities to

treat patients? The report encouraged the FFTF supporters to seek

partnership with private industry for the production of these treatment

quantities. Quantities that will be used to treat hundreds of thousand of

patients. The NERAC subcommittee also heartily endorsed the Expert

Panel Report, which predicted the growth to be 7% - 14% for therapeutic

isotopes. NERAC saw the obvious potential of the FFTF as a large-scale

F.T.I. - copied
relevant pages
and inserted
in the DOE
table.

IN FACT, I noticed
copies of excerpted
pages from this report
on the DOE
table

406-1
(Cont'd)

Response to Commentor No. 406

Commentor No. 406: Bruce Klos (Cont'd)

isotope production machine and applauded this capability throughout the report.

Second half-truth - The PEIS identified Puget Sound as a possible Port of Entry for the German Reactor-Grade fuel. However, the Senator failed to recognize it is unlikely that DOE will even ship the fuel to Puget Sound, not because of any risk, but because it costs more to sail to the west coast than to sail directly to an eastern port. The PEIS also indicates that Charleston Naval Station has been the primary port for receiving foreign fuel for the past five years and was the port selected for ~~detailed~~ ^{the bounding} analysis in the PEIS.

The signers of the letter also failed to recognize that the accident risk in the PEIS was determined to be less than 10^{-12} latent cancer fatalities or 1 in a trillion. For perspective, the chance of dying from cancer from one flight across the U.S. is 1 in 1 million. The chance of dying from an asteroid is 1 in 1.6 million. The chance of dying from this fuel shipment is

406-1
(Cont'd)

Response to Commentor No. 406

Commentor No. 406: Bruce Klos (Cont'd)

approximately
a million times less.

Clearly these members of Congress Senator are
 misinformed of the risks or have been misled.

Relates to the need for Pu-238

Third half-truth - In Seattle, last night I referred to this as a half
 truth. I have since re-read the letter, and must confess that I was too
 generous in that assessment. This aspect of the letter appears to be an
 outright falsehood. The letter states "The major claimed need for
 FFTF restart no longer exists, yet the Department continues to expend
 funds and undermine its credibility by continuing to propose the restart
 of the FFTF reactor to meet a need for **Plutonium that NASA has**
informed you does not exist." NASA did not say they no longer need
 Plutonium. NASA did state that they no longer required small RTGs for
 long space missions. These batteries use Pu-238 for the heat source.
 The same letter also indicated that NASA is transitioning to the more
 efficient Stirling Radioisotope Power System. This generator still
 requires Pu-238.

406-1
 (Cont'd)

Response to Commentor No. 406

Commentor No. 406: Bruce Klos (Cont'd)

How much effort would it have taken to for a Representative of the Federal Government to find this simple truth? Last night I ^{asked} ~~said~~ where was the other half of the truth, tonight I ask them where is any aspect of the truth?

As evidenced by the letter from the Association of Washington Business, and a recent Portland Oregonian editorial, there are those in Western parts of Washington and Oregon who support a balanced view of the issues; not just the anti-nuclear, anti-technology, anti-business views of many who were at the Hood River, Portland and Seattle meetings. As elected representatives you have a responsibility to your entire constituency. By not researching the whole truth, you do a disservice to them and to the remaining residents of the great state of Washington.

**406-1
(Cont'd)**

Response to Commentor No. 406

Commentor No. 407: Joyce M. Fitzgerald

Response to Commentor No. 407

Draft PEIS Comment Form

on a loved one
 Until you have heard your doctor say
 "you have cancer - you will not know the
 meaning of the word 'fear' -"
 "Fear" that works its way through your
 entire body - your life truly does flash in
 front of your eyes -
 This is a real fear a life threatening fear -
 that is destined to change not only your
 entire life process, but of each person
 around you - this is the 1st step - just
 dealing with this fear!
 The 2nd step - treatment! Now what?!
 Once you start to deal with this part of the
 process, you can invariably turn to ^{so many}
 ways ~~are~~ ^{are} there more available. Why aren't they
 more manufactured here?!
 Those are real fears: & that is what we should be
 dealing with - anything at all that can be done
 to expedite this process - must be undertaken!
 There are several ways to provide comments on the Nuclear Infrastructure
 PEIS. These include:
 • attending public meetings and giving your comments directly to DOE officials
 • returning this comment form to the registration desk at the meeting or to the address below
 • calling toll-free and leaving your comments: 1-877-562-4593
 • faxing your comments toll-free to: 1-877-562-4592
 • commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Joyce M. Fitzgerald
 Organization: _____
 Home/Organization Address (circle one): 4301 English Court
West Pabland
 City: West State: Ut Zip Code: 89353
 Telephone (optional): _____
 E-mail (optional): doublefite@aol.com

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Colette E. Brown, NE-50
 U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
 Toll-free telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
 E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

407-1

407-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 408: Victor and Roberta Moore

Victor & Roberta Moore

8149 W. Clearwater Place
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August 31, 2000

MS. Collette Brown
U.S. Dept. of Energy
NE, -50 Germantown Road
Germantown, MD 20874-1290

My wife and I moved to Kennewick, WA a little over two years ago. We were under the impression from what we could find out, that the mission for the Hanford project was to be clean-up.

Now comes the "boosters" for the restart of a moth-balled reactor in hopes of producing medical isotopes, although evidently, they are easily obtained from other countries.

The "boosters" also are pushing to perhaps produce space batteries, although we read that NASA says they have changed their requirements to a different form of energy.

Restarting the FFTF would mean adding more nuclear waste to the already overloaded wastestream that has no good way of disposal and no place to go.

Count us in the column to stay the course and continue with the Clean-up Mission!

No more production from Hanford until clean-up is accomplished.

Thank you,

Victor Moore

Victor Moore

Roberta Moore

Roberta Moore

♻️ Printed on recycled paper

Response to Commentor No. 408

408-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. A Tri-Party Agreement change was made to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Prior public meetings were held on this formal milestone change.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected. If the decision is made to shutdown the FFTF, then cleanup dollars will be needed to deactivate the facility, which could impact the overall Hanford cleanup schedule.

DOE was tasked by Congress in the Atomic Energy Act of 1954, as amended, to "... ensure the availability of isotopes for medical, industrial, and research applications, meeting the nuclear material needs of other federal agencies, and undertaking research and development of activities related to development of nuclear power for civilian use." The purpose of this PEIS is to determine the environmental and other impacts to accomplishing this mission from all reasonable existing and new DOE resources. The FFTF at the Hanford Site was one of several existing DOE resources that was assessed for this mission.

With respect to plutonium processing, no weapons material will be produced within the stated mission. All proposed activities are for civilian purposes.

Commentor No. 408: Victor and Roberta Moore (Cont'd)

Response to Commentor No. 408

408-2: For nearly 50 years, DOE's use of its unique technologies and capabilities to develop isotopes for civilian purposes has enabled the widespread application of medical isotopes seen today. While its market share is a small fraction of total world isotope production, DOE remains the key provider for a large number of isotopes that are used in relatively small quantities by individual researchers at universities and hospitals. Because their application is initially experimental, these isotopes are not generally purchased in large-enough quantities to make their production financially attractive to private industry.

The United States currently purchases approximately 90 percent of its medical isotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. As such, reliance on Canadian sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements. Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S. isotope needs.

408-3: A May 22, 2000, correspondence from NASA to DOE identified that NASA no longer has a planned requirement for small radioisotope thermoelectric generator (SRTG) power systems. This does not mean that NASA no longer requires DOE to provide the necessary plutonium-238 to support deep space missions. Rather, the suspension of SRTG development efforts was conducted in order to permit reprogramming of funds to support development of a new radioisotope power system based on a Stirling technology generator. This new radioisotope power system, referred to in the subject correspondence, requires 1/3 less plutonium as its fuel source. However, the Stirling technology is developmental and NASA has requested in a September 22, 2000 letter to DOE that the plutonium-238 needed for large RTG may be maintained as a backup. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

Commentor No. 408: Victor and Roberta Moore (Cont'd)

Response to Commentor No. 408

408-4: FFTF restart would not impact the schedule or available funding for existing cleanup activities nor would it generate high-level radioactive waste. As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram funds designated for Hanford cleanup, regardless of the alternative(s) selected.

The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed actions for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

Commentor No. 409: Gene Koschik

Draft PEIS Comment Form

I WAS MGR OF THE PLANNING + SCHEDULING AT THE CONSTRUCTION SITE FROM ~~1973-1976~~ 1973-1976. I SAW THE QUALITY WORK THAT WENT INTO THE FACILITY. IT PROVED ITS WORTH DURING A 10 YEAR PERIOD.

LAST YEAR MY WIFE WAS TOLD SHE HAS CANCER OF THE COLON! WHAT A ~~SHOCK~~ BLOW TO OUR FAMILY. I SPEAK AS ONLY ONE FAMILY THAT HAS A NEED FOR THE MULTIPLE THIS VERY SERIOUS MEDICAL BY THOUSANDS OF OTHERS ACROSS OUR NATION.

I ~~AM~~ ALSO WORKED IN (U) PROSECUTOR AS A MANAGER - WHEN I HEARD TONITE THAT WE BUY FROM RUSSIA, GERMANY AND CANADA AND WE SUPPORT OVER 100 OTHER REACTORS! WITH A "HORRIBLE" ~~AND~~ SITUATION FOR DOE TO BE IN - AND IMPART 90% OF ISOTOPES!!!

PLEASE RESTART FTF - THIS IS A "MAKE" DECISION NOT A "BUY" DECISION.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): GENE KOSCHIK

Organization: RETIRED - WESTINGHOUSE HANFORD COMPANY

Home Organization Address (circle one): 121 W 31 ST

City: KENNEWICK State: WA Zip Code: 98337

Telephone (optional):

E-mail (optional):

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Collette E. Brown, NE-50
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E-mail: NuclearInfrastructure-PEIS@hq.doe.gov

7/12/00

Response to Commentor No. 409

409-1

409-1: DOE notes the commentor's support for Alternative 1, Restart FTF.

Commentor No. 410: Laurel Piippo

FFTF4

Collette Brown
Department of Energy
August 31, 2000

PEOPLE FOR A KINDER AND GENTLER TREATMENT FOR CANCER



CANCER SURVIVOR LAUREL PIIPO

Dear Ms. Brown,

I've attended hearings in Hood River and Portland this week, plus hearings last year, and I'm exhausted. In those cities I've been called a 3-hour carpet bagger, told I was arrogant for being there and told to stay home, because it was THEIR hearing, told NOT to leave a hearing at 10:30 PM for the 3 hour drive home because the hearing wasn't over and I should have the courtesy to stay, asked how I had the gall to come to THEIR hearing. I've also been called a Bimbo, asked if my friends and I were the Singing Grandmas or a bowling team and accused of being a Communist because I wear a red shirt, but the accuser would rather be red than dead ha ha. Any time children's treatment for cancer was mentioned, a group of gigglers giggled. They probably laugh their way through the obituary column. People so vociferously opposed to nuclear medicine would rather be dead than cured. Having taught in the public schools for 20 years, rude treatment and name-calling rolls right off me because it says everything about the speaker and nothing about me. *Sops! - Dangling participle!*

I am appalled that an issue of such importance to the health of the American people should be decided by showmanship at expensive and wasteful hearings where ignorant people voice their emotions and little else. In Hood River we were subjected to papier-mâché Mardi Gras clowns representing Gore and Bush, also a man with a guitar and a lady friend who distributed words against FFTF for everyone to sing. In Portland a woman "testified" by singing a song. I admire their enthusiasm and creativity, but deplore their lack of scientific knowledge and technical expertise. Unfortunately, I share that particular deficiency, but I can say CLEAN UP HANFORD and CURE CANCER. *he having in Crown Point Col. George*

When my friends and I drove home from Portland yesterday we stopped at a view point high on a cliff above the Columbia River. The beauty of that river is so stunning I can't describe it. DOE, don't you dare dilly-dally in cleaning up the toxic waste at Hanford, which is seeping toward the river. That river runs through my town, Richland, where I've lived with my husband since 1951. Our two sons were born here and our seven grandchildren, who still live here. My husband used to be a great steelhead fisherman, and we all enjoyed eating it for many years. I am the only one of 13 in our family who has had cancer. I do not believe living near Hanford caused my cancer, but I am not a scientist, so I don't know -- and neither do you. I do know that we have a lower cancer rate than the national average, and a much lower rate than our neighbors in Hood River County, Oregon, according to the American Cancer Society. *and restart FFTF*

I am here for two reasons: CLEAN UP HANFORD. The DOE has an obligation to the people of the Pacific Northwest to CLEAN UP HANFORD, and I appreciate their focus expressed by people I heard in Hood River and Portland. I'm offended by another kind of waste -- the waste of taxpayer money in building FFTF and letting it sit costing millions of dollars for the past seven years. The DOE has an obligation to the American people to restart FFTF for the manufacture of medical isotopes for a kinder, gentler treatment for cancer. We have wasted seven years, wasted money, while 600,000 people per year die of cancer. A friend, mystified, asked me, "How could anyone be against medical isotopes?"

Medical isotopes offer a less traumatic treatment for many kinds of cancer. Cancer survivors like me go through barbaric and brutal traditional treatments, partly because anti-nuclear hysterics want to maintain the status quo. I am a four time cancer survivor, three times life-threatening. I hate boring you with a repetition of my medical

Response to Commentor No. 410

410-1: DOE notes the commentor's views and observations. It is DOE policy to encourage public input on matters of regional, national and international importance. DOE's Record of Decision for the NI PEIS will be based on a number of factors including environmental impacts, public input, costs, nonproliferation impacts, schedules, technical assurance, and other policy and programmatic objectives.

410-2: DOE notes the commentor's support for Alternative 1, Restart FFTF, and concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

410-3: DOE notes the commentor's opinion.

410-4: DOE notes the commentor's support for Alternative 1, Restart FFTF.

410-5: DOE notes the commentor's views about lessons to be learned from other countries on waste management and the limited benefit of the hearing process. See also response to comment 410-1. The U.S. frequently collaborates with France and other nations with developed nuclear power industries to share technology and nuclear practice information and experience.

Commentor No. 410: Laurel Piippo (Cont'd)

history. I had a radical mastectomy and removal of 18 lymph nodes in 1989 followed by six months of chemotherapy, the traditional brutal treatment that poisons the entire body. I know. For 18 hours after each chemo treatment, I lay on the bed trying not to throw up, unable to eat or drink anything, as close to hell as I've ever come. I would rather be dead than go through chemotherapy again. I had a Rubbermaid waste basket next to the bed for throwing up. When I tried to clean the bucket afterwards, it was black and corroded from the poison I had vomited. I looked at that bucket and thought, "My God, this brutality is supposed to cure me?" Of course my hair fell out and not just on my head -- eyebrows, eyelashes, nose hair, pubic hair, underarm and leg hair thinned out disgustingly. I told my husband, "I am a two-legged bald-headed hairless freak," stuck the hair that fell off by head in a box and gift-wrapped it for my doctor. Incidentally, the cancer was found by an X-ray -- nuclear medicine. I had extensive reconstructive surgery in May 1990.

In September 1990 a chest X-ray discovered lung cancer. Surgery was required to remove the lung. At that time I was so dumb I didn't know why half a dozen doctors standing by my bed at Virginia Mason Hospital seemed so relieved to tell me the lung cancer had nothing to do with the breast cancer. My main worry was that surgery might ruin my reconstruction. I had no idea that some kinds of cancer run round the body attacking organs until they kill you. I was fortunate to have primary cancer cured by surgery! The cancer had not metastasized, but for about six weeks the pain was excruciating. Since I have a high pain threshold, this surprised me. Recovering from previous surgeries was not a big deal, but my nurses were perturbed because I refused pain pills. Finally, I asked for two aspirin every night at midnight, and they felt much better. Lung surgery is something else. When a surgeon inserts a knife and removes a vital organ, the body is brutalized, and the pain is dreadful. I ate pain pills like popcorn and quit feeling so smug about being tough.

A couple of years later I finished reconstructive surgery when tissue was removed from the inner thigh and transplanted onto the breast to form a nipple and areola, just to give you all the intimate details. In 1993 cancer on the scar tissue came back on my right side. More surgery. I would have refused chemotherapy, but thank heavens the doctors prescribed radiation treatment -- 35 treatments over a 7 week period during which the entire upper right side of my body was ~~radiation~~ was burned red, blistered, raw, and bloody so treatment had to be suspended for 10 days. "This is barbaric. There must be a better way," I yelled.

Old-fashioned blasts of radiation melted down the last part of my breast reconstruction. The side effects over the years include lymphedema (swollen arm) because surgery, chemotherapy, and radiation finally broke down my formerly efficient lymph system in January 1997. I have to exercise and massage my arm daily and purchase compression garments three times a year at a total cost of about \$350 for the rest of my life. Another side effect were weakened bones on my right side, which resulted in fractured ribs on two different occasions. Shingles is another predictable side effect of radiation, and I didn't miss out on that one either. A persistent little cough is another side-effect of fried lungs. I never had a moment's pain from cancer because nuclear medicine caught it in time. It's the treatment that is awful. I am grateful to be alive and am dedicating my life to supporting medical isotopes as a more humane treatment for many types of cancer. Cancer fatalities are generally described in the obituary column as having "fought a courageous battle against cancer." I'm looking for a new disease, but if I do die of cancer, it won't be courageously. It will be a cowardly ~~and~~ demise because this wimp refuses to take chemotherapy, ~~and~~ am furious with anti-FFTF demonstrators who heartlessly demand, "Clean up Hanford and postpone cancer treatment." In other words, "Suffer and die because of our fear and ignorance." I'm told that FFTF would produce about the same amount of nuclear waste as two of our state universities. Again, I'm not a scientist, but I'd believe scientists before I'd believe the "Suffer and die" proponents. As a nation, aren't we smart enough to clean up and cure at the same time?

I don't know enough to comment about the other missions suggested for FFTF, but I do know that certain kinds of blood cancer, thyroid cancer, prostate cancer have been successfully treated with medical isotopes, called smart bullets, which directly attack the cancer cells without poisoning or burning surrounding tissue. I was

Response to Commentor No. 410

Commentor No. 410: Laurel Piippo (Cont'd)

astounded to hear from many people testifying against reactivating FFTF that this is about money, that the selfish Tri-Citians want jobs regardless of nuclear waste. They have the gall to judge my values by theirs. Money and jobs have nothing to do with my attending these tedious hearings. One person in my family works at Hanford in waste clean-up. My major concern is health, with the equally important concern of clean up. If they think this is about money, they must have left their brains and ~~any~~ compassion in the parking lot.

A couple of years ago I heard a program at Richland Kiwanis from a man who had studied nuclear waste disposal in France where nuclear power is an accepted fact of life. He visited their nuclear site, describing the area as beautifully landscaped with flowers, trees and green grass, and several large neat boxes which contain nuclear waste, controlled and contained. If the French can do it, why can't we? Why not direct your energies to going to France and coming back with a solution instead of looking for it among ignorant and emotional folks like me. I shouldn't have to come to these damn hearings over and over again when scientists and others who care about health and the environment should make an intelligent and compassionate decision: *restart FFTF*

Sincerely, "



LAUREL PIIPPO

1334 Sacramento Boulevard
Richland WA 99352
(509) 943-3415

410-5

410-1

410-4

Response to Commentor No. 410

Commentor No. 411: Ken Greenwell

FMIT versus FFTF

Hello. My name is Ken Greenwell. I live in Kennewick, Washington, and I am here representing myself. I would like to respond to statements that have been made about using an accelerator based facility like the Fusion Materials Irradiation Test (FMIT) facility to produce isotopes instead of the FFTF. I worked on the FMIT project, and there are several basic problems with this approach.

For background, the FMIT facility was being developed at Hanford in the early 1980's to test materials that could be used in a fusion reactor. Due to changing program needs and priorities, the project was cancelled before the development and design was totally completed or demonstrated.

In the FMIT facility, a beam of neutrons was to be used to irradiate small metal samples that might be used in a fusion reactor. The neutrons were to be produced by what is called a charged particle stripping reaction in which deuterium would be accelerated to impact a liquid metal target. When the deuteron beam hit the target, charged protons would be stripped off leaving only non-charged neutrons to continue out the back of the target. This would produce a beam of neutrons continuing in the same direction as the original deuteron beam superimposed on a lower flux neutron field.

Although suitable for the special purposes of the FMIT project, the neutron beam and available irradiation volume would not be very usable for many of the missions proposed here tonight. As an example, the higher neutron flux volumes, without targets in place, were very small, ranging from about one hundredth of a liter to one half liter dependent on the neutron flux level. This relatively small irradiation volume at the higher flux levels would severely limit the number and amount of medical isotopes that could be irradiated in a short time. Additionally, the neutrons from the FMIT target would include many very fast neutrons. The efficient production of many medical isotopes requires slower neutrons which are obtained by the use of what is called moderator materials. Adding moderator material and coolant within the irradiation volume would further cut down on the flux and the volume available for targets. Finally, the neutron

Response to Commentor No. 411

411-1

411-1: DOE agrees with the commentor that an accelerator like the FMIT would not be a viable alternative for the proposed action. The accelerators proposed for Alternative 3, Construct New Accelerator(s), are discussed in Volume 1, Section 2.3.1.5 and Appendix F.

411-2: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 411: Ken Greenwell (Cont'd)

beam was directional near the FMIT target with steep variations in flux level which would affect uniformity of irradiation. In the region outside the highest flux volumes mentioned above, there are of course other neutrons, but the neutron flux level drops off significantly with distance making it less attractive for producing high quality isotopes.

The above factors, particularly limited irradiation volume at higher fluxes, would make an FMIT size facility impractical for making any significant amount of high quality isotopes or irradiating physically large targets in a reasonably short time. Based on a usable FFTF target irradiation volume of about 80 liters, the FFTF would provide up to 8,000 times the irradiation volume of the FMIT at the highest corresponding FFTF flux level and over 160 times the volume at the lowest FFTF flux level.

Therefore, to provide a high flux irradiation volume comparable to FFTF would require building many FMIT type facilities. At a cost of more than 105 million dollars nearly 20 years ago, it would cost billions of dollars today to provide the required number of FMIT type facilities. It is conceivable that changes in technology might allow some scale-up to reduce costs, but this would likely mean a return to a research and development project perhaps with new technical uncertainties, additional costs, and delays. These facilities would also require hundreds of megawatts of electrical power for operation, with the associated added costs and environmental impacts for providing power. Finally, the FMIT was never built nor was it proven full scale. The free surface, high power, liquid metal target, which was essential to satisfactory operation of FMIT, was never actually demonstrated on any accelerator in the world, and thus it is not a readily available technology.

Based on the above, the FMIT approach is not a viable option. There is no valid basis for saying that an FMIT type facility would be superior to, or even remotely comparable to, the FFTF for medical isotope production or for civilian nuclear research and development work. I strongly urge the DOE to restart the proven, existing FFTF for the PEIS missions.

R. H. Greenwell
515 W. 20th Ave.
Kennewick, WA 99337

Page 2 of 2

**411-1
(Cont'd)**

411-2

Commentor No. 412: Dale Bartholomew

Draft PEIS Comment Form

and gratefully Lord.

I'm here this evening to support the restart of FFTF.

I'm here and cancer patients would like there to have the opportunity to receive therapeutic isotopes like I have. FFTF can provide that opportunity.

I also would like support its restart for the generation of Pu-239. Back in the early 70s I worked at RTG fabrication facility and we never had any radiological or biological problems associated with the Pu-239.

My job was at a company which was radiological safety non-destructive test instrumentation. Many applications are taught in correcting environmental issues such as Pb detection in paint in older properties and home protection.

Finally, I am very convinced that people who are opposed to restart, do not appear to be open to factual, objective technical data. I believe if they had an opportunity to work in nuclear facilities such as FFTF, they would realize their fears are unfounded.

It is my sincere hope that DOE's Record of Decision will be based solely on a thorough, technical analysis, not on emotion or currently politically correct positions.

412-1

412-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

412-2

412-2: DOE notes the commentor's views. DOE's Record of Decision for the NI PEIS will be based on a number of factors including environmental impacts, public input, costs, nonproliferation impacts, schedules, technical assurance, and other policy and programmatic objectives.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): DALE BARTHOLOMEW

Organization: _____

Home/Organization Address (circle one): 1330 BROADVIEW DRIVECity: W. RICHLAND State: WA Zip Code: 99353

Telephone (optional): _____

E-mail (optional): dalebartholomew@att.net

COMMENTS MUST BE POSTMARKED BY September 18, 2000

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E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 412

Commentor No. 413: Rick Mounce

Good Evening, my name is Rick Mounce. I reside in Kennewick, WA. I am speaking tonight as a private citizen.

I was not surprised that the PEIS confirmed that there was essentially no public risk associated with operation of the FFTF to support an expanded isotope mission. Since I have been associated with operation of the FFTF for many years, I can personally attest to its high standards of safety.

But tonight, I would like to comment on some of the information that has been distributed by the activist groups attending these meetings.

One brochure I have read from front to back is titled "Hanford and the River" by Columbia River United. This brochure identifies the major areas and past operations at Hanford that have impacted the Columbia River. I would like to point out that the FFTF operated for over 10 years. FFTF is not mentioned one single time in this activist publication for impacting the Columbia River. Why? Because operation of FFTF has absolutely no impact on the river.

Another hand-out I read was from Columbia Riverkeeper. In it they demand that the following statement be removed from the PEIS summary on spent fuel management. "The environmental impacts associated with the existing inventory of spent fuel at the Hanford site are minimal."

I agree that this statement should be removed. Instead, the PEIS summary should reflect DOE's well-publicized and appropriate commitment to remove the 2100 metric tons of corroded defense mission spent fuel from Hanford's 100 area water basins. This defense mission spent fuel does not include the 16 metric tons of non-defense spent FFTF fuel.

The PEIS summary should also discuss the minimal environmental impacts associated with the spent FFTF fuel on its own merits. Namely, that it is not corroded and is stored in dry storage casks, not aging defense mission water basins. This section should also be consistent with Chapter 4 of the PEIS which correctly states that the FFTF spent fuel will be shipped to the repository for disposal.

Another activist statement made by Seattle-based Heart of America Northwest contends:

Quote "Restart of the FFTF nuclear reactor will have enormous environmental consequences for the Pacific Northwest for generations to come. Restart of the FFTF nuclear reactor will mean importation of Weapons Grade Plutonium in "Mixed Oxide" fuel to Hanford from Germany and production of 35,000 pounds of High-Level Nuclear Waste (here they mean the 16 metric tons of spent FFTF fuel)- waste which USDOE has no idea of where or how to dispose of, but the report (and here they mean the PEIS) just

413-1

413-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

413-2: DOE notes the commentor's views and observations. DOE is committed to providing the public with comprehensive environmental reviews of its proposed actions in accordance with NEPA, and to providing ample opportunity for public comment on those actions.

413-2

413-3: The discussion in the Summary and Section 4.8.3.5 of Volume 1 on the cumulative impacts for spent nuclear fuel management at Hanford was revised to clarify that the management of the existing spent nuclear fuel at Hanford results in a dose of less than 0.1 millirem per year of the maximally exposed member of the public. This dose is well within the DOE limits given in DOE Order 5400.5. As discussed in that Order, the dose limit from airborne emissions is 10 millirem per year, as required by the Clean Air Act; drinking water is 4 millirem per year, as required by the Safe Drinking Water Act; and the dose limit from all pathways combined is 100 millirem per year. DOE has committed to remove the spent nuclear fuel at Hanford for ultimate disposition in a geologic repository.

413-3

413-2

Commentor No. 413: Rick Mounce (Cont'd)

concludes that the waste can be stored indefinitely at Hanford.” End Quote

First, the FFTF fuel is not, nor could it ever be, classified as weapons-grade plutonium. Also, had Heart of America Northwest read Chapter 4 of the PEIS, they would know that DOE did not, in any way, conclude that the spent fuel would be stored indefinitely at Hanford. Instead, they would know that the disposition path for the 16 metric tons of spent FFTF fuel is ship it to the repository for disposal, the same process as for the nation's 105,000 metric tons of commercial reactor fuel. They would also know that the time-line for doing this is either during operation or at cessation of reactor operation.

Furthermore, if Heart of America Northwest really had public education in mind, they would be knowledgeable about the status of the repository at Yucca Mountain. They would then know that the FFTF fuel is suitable for repository disposal in its current form and that its contribution to the overall projected repository inventory is only 0.015%.

I honestly do not understand the basis for many of Heart of America Northwest's claims that restarting FFTF will have “enormous environmental consequences for the Pacific Northwest for generations to come”. Or their claim that the public must demand that DOE shutdown FFTF to “prevent more disasters at Hanford” and “save the future of Hanford Cleanup.”

Heart of America Northwest must provide accurate credible analysis too substantiate their claims. They must also be willing to come to the table with their concerns so that they can be resolved. Operation of FFTF to produce isotopes for this nation is too important to throw out based on the here-say of a few activist groups.

By using unsubstantiated claims in an attempt to manipulate the public into forcing DOE to shutdown FFTF, it is my opinion that Heart of America Northwest has seriously undermined the NEPA process and their own credibility as a stakeholder.

On a personal note, just last month I lost my brother to cancer. He was 49 years old. Perhaps, had FFTF been restarted to produce medical isotopes earlier, he may still be alive today; therefore I fully support the restart of the FFTF to produce medical isotopes in support of the eradication of this and other debilitating diseases.

413-2
(Cont'd)

413-1

Response to Commentor No. 413

Commentor No. 414: Alice and Peter Shaw

Response to Commentor No. 414

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Draft PEIS Comment Form

Please see our comments attached "Breeder Technology: The Key to National Energy Independence" (1990). Whoever wrote it is very misguided and should be educated as to just what the advantages of the FFTF are. Actually, the public should be told in terms they understand!

Doc Hastings made statements that should be listened to - stop the scare tactics, etc. at tonight's meeting (8/13/00)

We hope you all have a copy of Pat Haley's statements that she made tonight!! Shirley Herlihy's too! and Bruce Delvin's! and Bob Thompson's especially concerning uncertainties, as well as Jerry Halder's & Jerry Kellers! and Ken Daubins!!

Please read & listen to the people who know what they're talking about. We need the FFTF!! Some people seem to argue that the cost of the FFTF is too high, but for our nation's energy on there are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Alice & Peter Shaw

Organization: _____

Home/Organization Address (circle one): 2217 Camas Ave.

City: Richland State: WA Zip Code: 99352-1905

Telephone (optional): (509) 375-1423

E-mail (optional): peter.shaw@jpac.com

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Collette E. Brown, NE-50
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Toll-free telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

414-1

414-1: DOE recorded all comments made at the public hearings and has included them in Volume 3 of the Final NI PEIS with appropriate responses. DOE gave equal consideration to all comments in preparing the Final NI PEIS.

414-2: DOE notes the commentor's support for Alternative 1, Restart FFTF.

414-2

Commentor No. 414: Alice and Peter Shaw (Cont'd)

This was headed to us as we sat down & waited for the meeting to start 8/31/00 @ Fawcett Inn, Richland, WA.

BREEDER TECHNOLOGY: THE KEY TO NATIONAL ENERGY INDEPENDENCE! (1990)

The sodium metal cooled Fast Flux Test Facility (FFTF) was obsolete before construction was ever begun, and has never operated as a plutonium breeder. Breeder technology predates FFTF by 25 years! FFTF was preceded by Experimental Breeder Reactor #1 (EBR-1, completed in 1951) and by EBR-II (completed in 1964), both of which proved the breeder concept by producing their own oxide fuel, which was recycled on site, at the same time producing electricity. The only shortcoming of either reactor is that neither recovered fission products for reuse.

Not true! FFTF was proposed to develop methods and materials that had already been developed, tested and proven in EBR-1 & II by 1968. FFTF, fueled with highly enriched (weapons grade) fuel, has never bred fuel, never produced electricity and has only served to heat the desert air. It has no end product that cannot be better produced in a commercial power plant. It has never paid for itself through production. It is only a costly consumer of resources. *not true*

The proposal to tap heat generated at FFTF for power production, by utilizing the generators from the abandoned CLINCH RIVER BREEDER, is ludicrous. One must only remember the lessons on metal-water reactions taught in high school chemistry, or the destruction of the Soviet MIKE class submarine on 8 April 1989 to be reminded that water and sodium metal react vigorously to liberate flammable hydrogen gas. One small leak in a sodium/water heat exchanger installed at FFTF would be the last leak. More research on inherently hazardous liquid-metal cooled breeder technology is not the answer. What is required is that the Department of Energy get out of the way and allow production of oxide-fueled breeder reactors which do one thing best: They produce more fissile fuel than they consume while producing heat (convertible to electricity) and light.

Tri-City Herald: 29 Oct 1990
"FFTF REPORTS RECORD ENERGY
PRODUCTION"

FFTF fuel assemblies have produced energy at a rate four times greater than commercial nuclear power plants. Two advanced oxide fuel assemblies have produced about 210 megawatt days of energy for each kilogram of fuel.

Letter to the Editor: Tri-City Herald
"JACKED UP REACTOR"

Four months of operation has produced not one kilowatt-hour, not 3 cent of recoverable energy. Can we afford to operate a "fleet of buses" continuously with the rear wheels jacked off the ground? Can we afford FFTF, which has never been blanketed with U-238, nor has it produced electrical power?

"In light of the experience gained from EBR-1 and EBR-2
FFTF SERVES ONLY AS A MONUMENT TO MAN'S STUPIDITY!"

Robert Dupuy
(FFTF WPD-Nov1990)

Galen Winsor

The public has to be educated in terms they understand or they'll be misled by gobble-de-gook like this.

*Alice & Peter Shaw
1509 375-1823*

Response to Commentor No. 414

Commentor No. 414: Alice and Peter Shaw (Cont'd)

THE SCAM OF NUCLEAR "WASTE" DISPOSAL (1984)

Every argument opposing the Basalt Project I have read is based upon fear of polluting the earth and water here in the Tri-Cities. Nowhere has anyone questioned the definition of "nuclear waste" or the wisdom of disposing of nuclear material.

The term "nuclear waste" is used to legalize theft from the ratepayers. The Basalt Project is justified upon the presumption that products of irradiation are harmful (any amount), are of no value and benefit and are "dangerous wastes" to be confiscated by the Federal government for permanent disposal at public expense; ALL FALSE PRESUMPTIONS!

Reactors have been built for 40 years at Hanford specifically to recover products of irradiation from "spent fuel" or "waste"! Even if we dumped all the heat from a reactor into the air (as was done with the original Hanford reactors and is now done at FFTF), we would still build nuclear reactors for the fission products. Electricity is simply a convenient by-product of material enrichment. If you purchased a bucket of coal and burned two lumps, would you dispose of the remainder of the coal as "waste"? We are!

WHO OWNS THE MATERIALS CREATED BY IRRADIATION AND JUST HOW MUCH ARE THEY WORTH?

Since the nuclear power consumer pays tribute to the Federal government and is financially liable for the disposal of "spent fuel" or Reusable Uranium Fuel (RUF), that consumer must then be the legal owner. The rate paying public has paid for "RUF", its mining, processing, utilization and now is billed for its burial.

WORTH? A TONNE OF "SPENT FUEL", "RUF", CONTAINS PRECIOUS METALS WORTH UPWARDS OF 10 MILLION DOLLARS. THE VALUE OF ALL SPENT FUEL SCHEDULED TO BE PERMANENTLY DISPOSED OF PROBABLY EXCEEDS THE NATIONAL DEBT!

WHAT IS THE FINANCIAL COST TO THE RATEPAYERS OF THIS SWINDLE?

Utilities carry spent fuel on the books as a liability, not a 10 million dollar per tonne asset and add this "expense" to the cost of your electricity. The nonsense put in place by Congress called the "Nuclear Waste Policy Act of 1982" multiplies the cost of power by at least a factor of 10. Our \$200. per month power bills should be \$20 or less!

The consumer pays \$1100. in tribute to the Secretary of Energy per hour of operation of WNP-2 to permanently dispose of the energy resources of the future. This charge equals the cost of recycling these materials and making them available to the public! Recycled fuel would yield zirconium for fuel cladding, fuel for new reactors, irradiation sources for food processing, for chemotherapy and medical research and superconducting metals for industrial applications. These by-products are not to be feared but to be used prudently and with wisdom to raise the standard of living of our society.

WHAT SHOULD WE DO WITH "NUCLEAR WASTE" ("RUF"/"SPENT FUEL")?

There is no "nuclear waste", simply transuranic materials to be recycled! It should be recycled routinely in existing facilities such as Purex, Barnwell Nuclear Fuel Plant (BNFP), G.E.'s Morris operation or at Nuclear Fuel Service (NFS) in New York. The recovered metals should be made available to industry.

WITH ALL THE FLACK OVER BURYING "WASTE", WON'T ANYONE STOP TO ASK -- WHY WE ARE BURYING OUR NUCLEAR RESOURCES?

THE ONLY NUCLEAR WASTE, I PERCEIVE, IS THE WASTING OF NUCLEAR RESOURCES!

Robert Dupuy
(scam.wpl, 1984, updated 8/31/2000)

Galen Winsor

Response to Commentor No. 414

Commentor No. 415: Anonymous

Draft PEIS Comment Form

Please restart FFTE. My brother was cured using isotope treatment for prostate cancer and I'm sure many others can and will be cured, too. Thanks.

415-1

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Name (optional): _____

Organization: _____

Home/Organization Address (circle one): _____

City: _____ State: _____ Zip Code: _____

Telephone (optional): _____

E-mail (optional): _____

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7/12/00

Response to Commentor No. 415

415-1: DOE notes the commentor's support for Alternative 1, Restart FFTE.

Commentor No. 416: David E. Nelson

Response to Commentor No. 416

Draft PEIS Comment Form

It is time that DOE restarted FFTE. It is the best facility for the production of Medical isotopes & performing research. Both my parents died of cancer. My uncle & I cousin died from cancer & the conventional treatments available at the time. With medical isotope treatment they would have survived. My brother in law was cured using isotope treatment for prostate cancer. Conventional cancer treatment debilitates & devastates the victims. Nuclear is the best option.

416-1

416-1: DOE notes the commentor's support for Alternative 1, Restart FFTE.

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Name (optional): David E. Nelson

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Telephone (optional): _____

E-mail (optional): dnelson@3-cities.com

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7/12/00

Commentor No. 417: William B. Garrard, Jr.

Draft PEIS Comment Form

I, as a private tax paying citizen, fully support the restart of the Fast Flux Test Facility (FFTF) for the following purposes: Medical & Research Isotopes, Pu-238 and advanced nuclear research. I also support the use of the FMEF to support the operation of the FFTF.

The US needs a domestic reliable source of Pu-238 and Medical & Research Isotopes, and I believe the FFTF and FMEF are the most cost effective and viable facilities to meet these missions.

Thank you

William B. Garrard, Jr.

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E-mail (optional): WBGarrard@aol.com

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7/12/00

Response to Commentor No. 417

417-1

417-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 418: Joe Johnson

From: Joe Johnson[SMTP:JOE@RICHLANDNAZ.ORG]
Sent: Tuesday, September 05, 2000 6:48:41 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: Yes, I think FFTF would be a good thing for the
USA and Richland
Auto forwarded by a Rule

418-1***Response to Commentor No. 418***

418-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 419: Gerald R. Greenfield

Draft PEIS Comment Form

FFTF Startup should be the preferred alternative. Even though it's operating costs are a bit higher than others, it is a small price to pay to relieve human suffering.

419-1

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- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Gerald R. Greenfield

Organization: Richland City Councilman

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Telephone (optional): 509-628-2068

E-mail (optional): jerryg@pwt.com

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7/12/00

Response to Commentor No. 419

419-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.